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THE COLLECTIONS OF OLD WORLD ARCHEOLOGY IN THE UNITED STATES NATIONAL MUSEUM.

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[With 57 plates.]

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INTRODUCTION.

The collections embrace two great sections of the antiquities of the Old World, illustrating: (1) the culture of the so-called "historic" nations, especially those who were settled around the Mediterranean Basin (Egyptians, Babylonian-Assyrians, Syro-Palestinians, Greco-Romans), from which our own civilization is largely derived; (2) the diversified cultures of various peoples in Europe, Asia, Africa, and Australasia, imperfectly or not at all represented in contemporaneous written documents, and commonly designated as "prehistoric" archeology. Though the collections are by no means complete and well rounded out, since no systematic explorations and researches have been extended to foreign countries, still they contain a considerable, varied, and important series of specimens, both interesting and instructive to the public as well as the student. The following pages will first give a survey of the material contained in the collections, combining the chronological order of the phases or stages of the cultural remains with their geographic provenance; and then a sketch of the exhibit of a selection from this material.

PREHISTORIC ANTIQUITIES.

Remains of the Stone Age.

I. THE PALEOLITHIC PERIOD.

The Stone Age derives its name from the fact that during that age man manufactured his tools and weapons chiefly of stone. These implements constitute the earliest known cultural traces of the human

race. They are assigned to the Pleistocene, or Quaternary period of geology, which includes the so-called Ice Age. The two chief sources of these traces are the river gravels and the caves, rock shelters, and other inhabited sites. The flint implements occurring in the former are found to have the same color and surface characteristics as the unworked nodules among which they lie, and are often abraded in the same way, indicating original inclusion in the formation. The period is determined not only by their geological position, but by their association with the remains of extinct species of mammals, such as the mammoth, rhinoceros, and reindeer. In some cases these bones are found in such relative position as to prove that they were deposited with the flesh still adhering to them, and it is also clear that the animals were contemporary with the makers of the flint implements.

In the caves occupied by man, his implements have been left with the bones of animals on which he lived. Scattered upon the floor of the caves these objects have been sealed up by the infiltration of lime-charged water, and have remained undisturbed until our day. There can be, therefore, no doubt of their great antiquity.

The cultural conditions characterizing the Stone Age, however, were not common to the whole world during a certain definite period of remote antiquity. The beginning and duration of this so-called age varied in different regions of the earth, and with different peoples. It must, therefore, be held to denote a stage of human culture rather than a division of time.

The Stone Age is divided into: (1) a Paleolithic (older stone) period, and (2) a Neolithic (younger stone) period.

In the Paleolithic period six stages are generally distinguished, determined by the character of the relics found on certain stations in France, which are regarded as typical. They are, in chronological sequence, the Chellean, Acheulean, Mousterian, Aurignacian, Solutrean, and Magdalenian, names derived from Chelles (Seine-et-Marne), Saint-Acheul (Valley of the Somme), Cave of Moustier (Dordogne), Grotto of Aurignac (Haute-Garonne), Solutré (Saône-et-Loire), and la Madeleine (Dordogne). The names of these stations have been adopted by anthropologists as conventional landmarks for describing the progressive development of man, marking the divisions in his general march to the goal of civilized life. The characteristics of the culture of these six stages are briefly as follows:

1. *Chellean stage.*—The distinctive implement of the Chellean phase of culture, frequently its sole representative, is the hand ax (coup-de-poing, also called boucher, after its discoverer, Boucher de Perthes). It was produced by detaching flakes from a nodule, or pebble, bringing it to a point, while leaving a heavy base, sometimes

retaining the natural crust. The edges are more or less wavy, owing to alternate chipping on opposite faces. It varies from 2 to 10 inches in length, and was fitted for grasping in the hand without a haft. It might have been used for a number of purposes, as cutting, digging, scraping, etc., and also as a weapon.

The animals represented by the fossil remains imbedded in the Chellean river-drift deposits were the straight-tusked elephant (*Elephas antiquus*), the large hippopotamus, the woolly rhinoceros (*Rhinoceros tichorhinus*, or *merkii*), the Trogontherium, the cave bear, and the cave hyena, pointing to a warm, moist climate, perhaps one of the milder intervals of the Ice Age.

2. *Acheulean stage.*—The hand ax, or boucher, characteristic of the Chellean Age is also associated with this stage, but is distinguished by better workmanship and a more elegant form. It is flatter and thinner. The flaking is finer, and the edges are worked by secondary chipping into an even, regular line, rendering the implement more trenchant and efficient. The natural crust of the stone, if not altogether removed, is only visible in small patches. In the upper Acheulean stage the hand ax assumes a fine lanceolate form, and is accompanied by a great variety of smaller implements.

In addition to the animals of the preceding Chellean stage, the mammoth (*Elephas primigenius*) was an inhabitant of western Europe during this period.

3. *The Mousterian stage.*—The most characteristic implement of this stage is a flake struck off from a nodule, chipped on one side giving a curved cutting edge, opposite which is usually left a portion of the original crust of the stone to serve as a grip. The nodule held in the hand was carefully chipped on one surface, giving the desired form, and then with a well-directed blow the entire worked surface was severed from the rest of the nodule. The tool thus produced presented a sharper cutting edge, and required less labor in its manufacture than the hand ax. Along with it were scrapers, lance heads, etc.

It is believed that about this time the climate became colder and man first made his home in caves. Animals adapted to a cold climate, as the mammoth, rhinoceros, reindeer, arctic fox, etc., became abundant, while the hippopotamus and other creatures usually associated with warm climates, gradually disappeared from Europe.

The formations of this stage furnish earliest known osseous remains of man (found in Neanderthal and Heidelberg, Germany; Krapina, Croatia; Spy, Belgium; Le Moustier and La Chappelle-aux-Saints, France; and Ipswich, England).

4. *Aurignacian stage.*—The stone industry of this stage is characterized by slender, pointed flakes, carefully retouched all along

the cutting edge and marked by regularity and fineness of the secondary flaking.

More important is the introduction of a new material, namely, bone, which while tougher and less brittle than flint is capable of taking a fine point. Bone points with cleft base, perhaps the predecessors of the needle, are characteristic of this stage. Other typical tools are awls carved out of the metacarpal of the horse or reindeer with the knuckle end left to form a handle; they are chiseled with transverse incised lines.

This stage also marks the birth of the fine arts: Sculpture, painting, and drawing made their appearance.

The presence of the reindeer in this and the succeeding stages gave them together the designation of the reindeer epoch.

5. *Solutrean stage.*—During this stage flint working attained a high degree of excellence, to be surpassed, however, in the Neolithic period. The most characteristic forms are leaf-shaped blades, which may have been used, according to size, as arrowheads, lance heads, or even as knives, and shouldered points having one side of the hilt cut away, leaving a tanglike projection. It is probable that the chipping of flints which hitherto had been effected by percussion with a stone hammer, was now also performed by pressure by means of bone fabricators, which permitted of more refined finish. Bone and ivory continued in use, and the earliest bone needles are met with in the upper horizons of this stage.

The horse was abundant, but the reindeer, the mammoth, the urus (*Bos primigenius*), etc., also were represented. Along with the remains of implements and animal bones a number of hearths have been found.

6. *Magdalenian stage.*—In this stage prominence was given to the manufacture of all sorts of objects of bone, ivory, and horn, with a corresponding decline in the flint industry. The flint implements are less elaborate and often lacking in finish; they consist to a great extent of long, thin flakes and splinters which have been converted by a minimum of dressing into scrapers, knives, gravers, drills, and other simple tools. The occurrence of bone harpoons may indicate that the people of this time were fishermen as well as hunters. Aside from sculpture and line engraving some of the paintings on the walls of caves are credited to this period.

The fauna is represented by animals of a cold climate: The reindeer, stag (*Cervus elaphus*), Irish deer (*Cervus megaceros*), bison, artic hare, etc. The mammoth had disappeared.

These stages may be separated into two groups. The older, represented by the two first stages, is practically confined to the diluvial, or river-drift deposits; the typical implement is the crudely chipped almond-shaped hand ax. The younger group, comprising

the four later stages, is characterized by a greater variety of implements which are also noteworthy, both for their greater artistic finish and their wider range of usefulness; they are found principally in the caverns and rock shelters. It is also marked by the appearance of bone implements and the beginnings of the arts of sculpture and painting.

"*Eoliths.*"—Preceding the Paleolithic period is assumed by some archeologists an "Eolithic period" ("dawning stone age"), which is supposed to have reached back into the Tertiary epoch of geology. The finds attributed to the "Eolithic" period are roughly worked pebbles, or nodules, slightly trimmed on one margin, deeply stained to a deep, ocherous brown color, indicating age, and usually bearing marks of drift action. They have been found in the south of England, notably on the chalk plateau of Kent, and in some districts of France, Belgium, and Spain. They are believed to represent the earliest known attempts of man at tool making.

Although it would seem to be a necessity that man should have passed through an earlier stage before arriving at the precision of workmanship and the fixed types characteristic of the Paleolithic period, the geological age of these relics is not well determined and it is even a question in many cases whether they are the work of human hands, as flints may be chipped by pressure of shifting gravel, glacial action, or falling masses. It is therefore doubted by some archeologists whether the crude flints assigned to that period are artifacts or are of natural origin.

Azilian-Tardenoisian period.—As connecting links between the Paleolithic and Neolithic periods are regarded the relics found in the cavern of Mas d'Azil (provincial form of Maison d'Azyle), Ariège, and in Fêre-en-Tardenois, Aisne. The typical implement of the former locality is the flat harpoon of red-deer horn, while the finds in the latter place are characterized by small flint instruments and tools, affecting geometrical forms, such as triangle, trapeze, rhomboid, etc.

II. THE NEOLITHIC PERIOD.

In the Neolithic period the physical conditions were similar to those of modern times. The configuration of the land was practically the same as at present and the severe arctic conditions had passed. Of the animals which lived with the cave man, some, like the mammoth, had become extinct, others, including the reindeer, had wandered to distant regions. The animals associated with man belonged to existing species.

The implements and weapons of Neolithic times were made in a great variety of well-defined forms and exhibit a high grade of

workmanship, and by providing them with hafts or handles they were made more efficient, while the adoption of polishing or grinding made it possible to employ other hard stones, such as diorite, serpentine, and basalt, not so tractable for chipping as flint. Polished stones, however, are not the main characteristic of the Neolithic period. For not only were a large class of the more delicate implements and weapons, such as knives, scrapers, spearheads, and arrowheads rarely ground or polished, but even axes of exceptionally fine workmanship were sometimes shaped by chipping alone. More important were the great strides which Neolithic man made in the direction of what is summed up under the name of civilization. He no longer lived, like his predecessor of Paleolithic time, exclusively by the chase, but tilled the ground, cultivating cereals for food and textile plants for raiment. He tamed animals and trained them to domestic use, developed the art of making pottery, and for shelter he often constructed wooden dwellings, raised on piles, in lakes and rivers. From the elaborate chambered graves (Barrows) erected over the bodies of chiefs, as well as from other megalithic monuments (Menhirs, Cromlechs, Dolmens) which still exist, we may, perhaps, safely infer the birth of religious sentiments and beliefs during, if not before, that time.

According to the degree of civilization attained, as illustrated by the remains discovered, there are distinguished three divisions in the Neolithic period:

1. *Early Neolithic*, called the Campigny period, from one of its typical stations (Seine-Inferieure, France), characterized by rough, indeterminate flint implements, the tranchet hatchet of the Danish kitchen-middens, axes sometimes slightly polished. Dog domesticated. The habitations consisted of caverns and rock-shelters, and hearths hollowed out of the earth. No burials yet found have associated relics of art.

2. *Mid Neolithic* (Chassey, Saône-et-Loire, France, and Robenhausen, Switzerland).—Increased number of implements—daggers, saws, gouges, maces; deer-horn hafting of celts; polished stones; bows and arrows and lances. Building and navigation; nets, fishhooks. Baskets; spinning and weaving; cultivation of trees and crops. Domestication of animals. Manufacture of pottery with handles and ornaments. Alongside of caves and grottoes, pit and lake dwellings. Inhumation in caverns and grottoes, or in the earth, with objects deposited in the graves.

3. *Late Neolithic* (Carnac, Morbihan, France).—Artistic forms of celts; polished and perforated ax and hammer heads; jet, quartz, and steatite ornaments; engraving and sculpture; superior pottery

and general improvement on earlier industrial products; surgery, trepanning.

Improved habitations as demonstrated by the lake-dwellings of Switzerland and the Terremare settlements of Italy. Megaliths: Menhirs, stone circles, etc. Inhumation in dolmens, chambered barrows, and cists, with votive axes, amulets, and food.

The term Neolithic period does not imply a culture uniform in all parts of the world. In some regions the new arts developed sooner than in others. The progress in various regions and among different peoples toward civilization has always been very uneven. The culture of most, if not all, of the primitive peoples of historic times falls within the Neolithic stage.

The transition from the Stone Age through the Bronze Age to the Iron Age, and thus to what has been termed the "Middle level of civilization and onwards," is formed by the cultures of the lake dwellings and the Terremare settlements.

The Lake Dwellings.

The term is applied to habitations of wattle and daub raised, for greater security, upon piles within the margin of lakes or creeks at some distance from the shore. The existence of such dwellings was first noticed during the exceptionally dry season of 1853, when piles were exposed on the shores of the Lake of Zürich, in Switzerland, and soon numerous antiquities were brought to light. Since then it has been found that nearly all the lakes of Switzerland and many in the adjoining countries were peopled by lake-dwelling communities, living in villages constructed on platforms supported by piles at varying distances from the shores. Fifty such settlements have been enumerated in Lake Neuchatel, 32 in Constance, 20 in Bienne, and 24 in Geneva. Some of the settlements occupied an area 1,200 by 150 feet. The settlement of Pfäffikon covered 3 acres and is estimated to have contained 100,000 piles. A settlement in Lake Bienne extended over 6 acres and was connected with the shore by a gangway nearly 100 yards long by 40 feet wide. Often the settlements were accessible only by canoes. The huts raised upon the platforms were quadrilateral, measuring from 20 by 12 feet to about 27 by 22 feet. The walls were constructed of wattle coated with clay; the roofs were thatched with bark, straw, reed, or rushes; the floors were formed of clay well trodden down; the hearths consisted of stone slabs. The antiquities found on the various sites show that this manner of life continued from Neolithic times through the whole of the Bronze period into the earlier Iron Age.

The remains discovered on the sites of the Swiss lake dwellings, of which the settlement of Robenhausen on the moor which was formerly the bed of Lake Pfäffikon is considered the typical example, discloses an advanced condition of culture. The most important implement or weapon was the polished celt axe, which was usually of small size and made of hard stone, like diorite, serpentine, syenite, etc. It was often fixed in sockets of deerhorn or staghorn and set into a wooden handle, the elasticity of the horn socket rendering the handle less liable to split. Other weapons and implements were flint arrowheads and spearheads, saws and knives mounted in wooden handles with asphalt, stone hammers, and grain crushers. Along with a great variety of bone tools, wood was extensively employed for shafts, maces, bows, floats for nets, plates, ladles and spoons, tubs, canoes, etc. The art of the potter had considerably progressed, although the use of the wheel was still unknown. The vessels were often of large size, and sometimes roughly decorated with knobs and finger or cord impressions. The lake dwellers were no longer wholly dependent upon hunting for their livelihood. They cultivated wheat, barley, and millet, from which they made a rough kind of bread; they preserved apples and pears, and were also acquainted with raspberry and blackberry. The pieces of woven stuffs which have been preserved show that besides garments of skins, flax was grown and clothing woven from it. About 170 plants and 70 species of animals have been discovered and determined. Of the latter, 10 are fish, 4 reptiles, 26 birds, and 30 mammals. The animals which were domesticated were the ox, horse, dog, swine, sheep, and goat. Of the wild animals then inhabiting the district, the urus, bison, elk, and stag were among the most common.

The Terremare Settlements.

Remains of ancient settlements have been uncovered in mounds scattered over the plains of northern Italy which are traversed by the Po River and its tributaries, comprising the Provinces of Parma, Reggio, and Modena. Similar remains are also found in the valley of the Theiss, in Hungary. The name Terremare is derived from the marly soil of which the mounds are composed, known among the peasants of Italy as *marna*, or *merne*, by archeologists generally called *terra mara*, or *terre mare*.

The remains brought to light in these mounds represent pile-dwelling villages erected on land. The typical settlement was trapezoidal in plan, with its parallel sides running north and south, and two roads at right angles dividing it into four quarters. It was protected by a rampart and a wide moat and strengthened on the inside by buttresses. Outside were one or two cemeteries. The

average settlement covered about 7 acres. Over 100 stations have been discovered in Italy.

The stage of culture represented by the relics imbedded in the mounds is mainly of the early Bronze Age, but stretches back into the later Stone Age. Stone objects are few in number. Bronze was the chief material, represented by axes, daggers, swords, knives, razors, needles, pins, brooches, etc. Some stone and clay molds and pieces of bronze slag show that the technique of bronze casting was known. The practice of weaving is proved by a great variety and abundance of spindle whorls and loom weights. Wood was used in the manufacture of a great variety of objects, as handles, dishes, spoons, flooring, etc. Ornamental buttons, pins, combs, etc., were made of horn and bone. The ceramic art was extensively practiced. The decoration of pottery consisted of parallel and wavy ridges, incised triangles and crosses, knobs, circular impressions, etc. Small clay figurines, chiefly of animals, are the earliest specimens of plastic art found in Italy.

The inhabitants, though still hunters, derived their principal sustenance from agricultural and pastoral pursuits. They cultivated wheat, beans, vine, and flax, and had as domesticated animals the dog, pig, chickens, etc.

It is generally assumed that the Terremare folks were descendants of the lake dwellers who invaded the north of Italy in two waves from Central Europe, one toward the close of the Stone Age and the other after the Bronze Age had begun, bringing with them modes of house building which led to the erecting of pile dwellings on dry land. With the entrance of the Iron Age the Terremare settlements seem to have fallen into desuetude.

Remains of the Stone Age from Europe.

GREAT BRITAIN AND IRELAND.

The old Stone Age of England is represented by "eoliths," Chellean and Acheulean celts and picks, and a large variety of flake tools. They are derived from various localities, as the gravel of the Thames, chalk plateau of Kent, Thetford, the caves of Igtham, Robin Hood, Creswell Crags, Grimes Graves, Island of Jersey, etc. Of Neolithic material there are chipped celts, adzes, chisels, hammerstones, various scrapers, discoidal, triangular, and crescent shaped, and other flake tools, as knives, gravers, needles; a few shells and arrowheads, mostly coming from Beachamwell, Swaffham, Norfolk, and Ploughed Lands, South Downs, Sussex.

The osseous material (partly casts) consists of bones and teeth of the mammoth, hippopotamus, bison, rhinoceros, grizzly bear, cave hyena, reindeer, and fox.

Ireland furnished a considerable number of rude, nondescript quartzite implements, pounders or crushing stones, mauls, sling stones, hoes, and rudely worked flakes, but also polished celts and chisels, whetstones, drilled hammerstones, perforated stone rings, and a variety of arrowheads;[1] also a few fragments of pottery and bones and teeth of deer and ox. The material is derived from the caves of Ballymenoch and Craigavad and the counties of Antrim and Limerick.

From Scotland there are only an anvil of sandstone and a few flint flakes and cores, while Wales is represented by only a cast of a drilled hammer, carved with a netting design.

As a continuation of the Stone Age works into modern times in England may be considered:

THE BRANDON FLINT INDUSTRY.

Near Brandon, a village in Suffolk, England, there are prehistoric flint quarries which are being worked at present for the production of gunflint and strike-a-lights. The flint for this industry is obtained from Lingheath Common, about a mile southeast of the village; but the original quarry, believed to date from Neolithic times, was some years ago discovered in "Grimes Graves," a collection of pits 3 miles north of Brandon, where, at a depth of 39 feet, the "stone floor" was reached from which gunflints are manufactured at the present day.

The flints best adapted for the purpose of manufacture are those from the chalk formations. They are usually procured by sinking small shafts into the ground until a band of flint of the right quality is reached, along which low, horizontal galleries or "burrows" are worked. The tools used in quarrying are a one-sided, steel-tipped iron pick and a short crowbar. The lamp is made up of a candle stuck in a hollowed-out lump of chalk. The finished article passes through three processes of manufacture:

1. *Quartering.*—Sitting upon a stool which is slightly sloping forward a block of flint is placed on a leather pad on the workman's knees and broken up into splinters of about 6 or 7 inches square. The technique of quartering lies in breaking the stone so as to have a more or less squared-off edge to begin flaking from. Two sizes of hammers are used weighing 3 and 6 pounds, respectively. They are hexagonal in section and taper toward the faces.

2. *Flaking.*—This is the most difficult part of the process. The stone must be struck at a proper angle, with a certain force, and

[1] The bow and arrow became the ordinary weapon during the Neolithic period. The arrowheads preserved from that period present a variety of forms, as triangles, leaf and lozenge shaped, barbed, and with or without a stem. Polished arrowheads are found only in Ireland and Portugal.

by a particular portion of the face. The flaking hammer is made of steel, weighs about a pound, is square in section, and tapers toward the two ends.

3. *Knapping.*—Before the "knapper" is a wooden block into which an iron stake or chisel is let in and padded at the sides with leather to insure a rebound from the hammer stroke. The flake is taken in the left hand and held on the stake and with a chisellike hammer is cut into the required sizes and trimmed.

Eight different sizes of gunflints are made, their names and dimensions being as follows: Long Dane (for the lengthy Arab gun), $1\frac{3}{4}$ inches by 1 inch; fowling, $1\frac{3}{8}$ inches square; musket, $1\frac{3}{8}$ by $1\frac{1}{4}$ inches; carbine, $1\frac{1}{4}$ inches by 1 inch; horse pistol, 1 inch square; single (for single-barreled gun) and rifle, seven-eighths of an inch square; and pocket pistol, five-eighths by one-half of an inch.

Gunflints are still used by the tribes of central and western Africa, the Congo and Gold Coast, and the Arabs around the Mediterranean, all of whom are precluded—so far as it lies within the power of European Governments to enforce the prohibition—from acquiring modern firearms, such as breech-loading rifles and sporting guns. Factories exist at Birmingham and elsewhere which turn out nothing but flintlock and small arms, and Brandon provides the flints, the average output being 150,000 a week.

Tinder-box flints (strike-a-lights) are likewise still made for export. The Italian and Spanish peasantry prefer the tinder-box to any other means of obtaining light. It is also used in the humid African forests where matches prove unreliable. During the South African War 14,000 tinder boxes, provided with the best Brandon strike-a-lights, were issued to the British troops.

By a comparison of scrapers of prehistoric times with old strike-a-lights, of these with modern ones and with old English gunflints, an almost unbroken succession from the Neolithic period may be traced for the Brandon industry. Also the tools have not much altered since Neolithic times, if the ground and perforated Neolithic hammers are compared, save that iron or steel has superseded stone in the hammers and horn in the picks, and it may be mentioned that during the exploration of "Grimes Graves" there was found in the covered passage of a sand mound which had apparently been used for flint working in Neolithic times a pickax formed of flint fastened in a stag's antler.

FRANCE.

From France, the classic reservoir of the remains of the Stone Age, there is a considerable collection representing the several stages of the Stone Age period and various stations, caves, and

rock shelters where they have been located, as Chelles, St. Acheul, Le Moustier, La Madeleine, Les Eyzies, La Quina, Laugerie Haute and Basse, Bruniquel, Grotto de Bize, etc.

Of the Paleolithic period there are rude quartzite celts, Chellean and finely flaked Acheulean flint celts, Mousterian points and scrapers, especially of the Levallois type, Aurignacian, Solutrean and Magdalenian flake tools, as scrapers, points, gravers, borers, etc., mortars, breccia, pieces of stalactite and stalagmite, ochre and mullers for rubbing the ochre for painting, fossil shells. Besides, bone and horn implements,[2] as points and needles, spear throwers, harpoons,[3] and the so-called batons de commandment.

A small collection of plaster casts illustrates the art of the Paleolithic period. The esthetic arts of prehistoric times had their beginnings in the Aurignacian stage and reached their zenith in the Magdalenian stage, the final stage of Paleolithic culture. During these later stages of the Paleolithic period the cave dwellers cultivated both the graphic and plastic arts so assiduously and effectively that they have bequeathed an art gallery of some four or five hundred of engravings, sculptures, and even polychrome paintings, executed with such life and realistic naturalism as to excite astonishment and admiration.

The paintings were chiefly executed on the walls and ceilings of the caves. The materials for sculpture and engraving were the bones, horns, and tusks of the animals killed in the chase; the tools, sharply worked points or gravers of flint. The objects represented were chiefly the animals of the period and locality; representations of the human form are comparatively rare, and for the most part of inferior execution.

In the Neolithic period the industrial arts rather than the esthetic arts were cultivated. The latter were almost entirely confined to the decoration of pottery, the designs being mostly geometric in character and incised or impressed. The collection in the Museum comprises carvings and engravings.

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[2] Implements of horn and bone were common in the later stages of the Paleolithic period and continued to be employed through the Neolithic period. Bone was worked into chisels, awls, needles, arrowheads and spearheads, harpoons, whistles, and various other objects. The horns of the stag were made into celt sockets. Stout pieces of this material, perforated for inserting wooden handles, served as hammers and hatchets or hoes; and the antler was sometimes converted into a club by the removal of the prongs, except that near the base.

[3] The earliest harpoons occur in the Magdalenian stations, showing that at this stage of culture man added fishing to hunting as a means of sustenance. The larger specimens are invariably made of deerhorn, but the smaller ones are sometimes made of bone. Some harpoons are barbed on both sides, others on one only. At the base there are sometimes projecting knobs for retaining the loop of the cord by which the head was connected with the shaft. In northern Europe (Denmark) are also found harpoons of staghorn set with sharp pieces of flint as barbs.

Of the Neolithic period there are chipped and polished celts and chisels from various localities, the large cores (*livres de beure* from a supposed resemblance to pounds of butter) and flakes from the workshops of Grand-Pressigny (Indre-et-Loire)[4] knives, hammerstones, sling stones, grind,[5] mealing, and rubbing stones, worked horn, pottery fragments from dolmens, a plaster model of a dolmen,[6] clay beads and spindle whorls.[7] The osseous remains consist of the bones and teeth of the cave bear, rhinoceros, aurox, wild goat, reindeer, and horse, and fragments of a human jaw.

ITALY.

The prehistoric remains from Italy come largely from the Terramare stations near Modena, Castelaccio, and Castione, and from the lake dwelling stations at Lonato and Peschiera on Lake Garda, besides from the caves of Breonio and Lazarro, the island of Levengo, Sicily, island of Elba, Tuscany, and other localities. They include a variety of flake implements—scrapers, knives, points, arrowheads, some small chipped celts or chisels, and a number of finely polished celts and chisels. Mention is also deserved by a collection of *forma curiosa*, falsificates which originated in Breonio and in the neighborhood of Santa Anna, Verona. They consist of gray or brown flint, chipped in form of crosses, stars, squares, etc., representing neither tools nor weapons nor ornaments. There is also a considerable

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[4] They are débris of a Neolithic workshop in the neighborhood of Grand-Pressigny, Department of Indre-et-Loire, France. The products of this industry, easily recognizable by their yellow waxen color, have been traced not only in various parts of France, but also in Belgium and Switzerland, so that apparently an export trade was carried on by the neolithic manufacturers.

[5] The grindstones used in shaping stone implements are generally of compact sandstone or quartzite and usually of two forms—flat slabs, often worn by use, and polygonal forms with several facets, convex and concave. In the operation of grinding, the grindstone was fixed and the implements were rubbed lengthways on the grinding bed, as shown by the longitudinal furrows, or striae, which characterize the implements; and from the coarseness of these furrows on many of the implements, especially the large ones, it would appear that some coarse and hard grit must have been used to assist the action of the grindstone.

[6] Stone monuments of huge size have been found in various regions the world over, and may be traced to the remotest times. Modern statues, obelisks, and other monumental works are the lineal descendants of these crude, unhewn monoliths. Such stones when standing single and isolated are called *menhirs;* when several of them are arranged in a circle or ring they are called *cromlechs;* while the term *dolmen* (table stone) is used for structures consisting of a large capstone supported on upright stones, usually three in number so as to form a chamber (see model in case). This chamber is sometimes embedded in a mound of earth or stones so as to present the form of a tumulus or cairn. It is believed that the primary object of these monuments was sepulchral, and that the implements, ornaments, etc., found in their neighborhood were votive offerings to the dead. The megaliths found in abundance in France, especially in the Province of Brittany, are regarded as marking the close of the Neolithic period.

[7] In their simplest form spindle whorls are disks of stone, clay, bone, or wood, from 1 to 1½ inches in diameter, pierced in the center for inserting the shaft. Sometimes they are conical and ornamental with incised lines. They served as flywheels to add momentum to rotary motion of the implement.

amount of pottery fragments and spindlewhorls. Osseous material is represented by the bones and teeth of the cave bear, cow and ox, besides the antler of a deer and horns of a bullock.

BELGIUM.

There is first to be mentioned a collection (partly casts) of Mesvinian and Strepyan artifacts. They are so called after the typical sites of their occurrence—Mesvin and Strepy, in Belgium. They consist largely of nodules and flakes of flint or brown chert, roughly chipped at the margin, and adapted to the purposes of hammering, cutting, abrading, and perforating. Dr. A. Rutot, of the Royal Museum of Natural History, at Brussels, Belgium, divides them, according to the degree of deliberate design which they exhibit, into three classes: Mesvinian, pre-Strepyan, and Strepyan, and considers them as representing transition stages from the Eolithic to the Paleolithic stages of culture.

The bulk of the implements from Belgium are of the Neolithic period and come from Spiennes (the flint mines of which belong to the best known, and where the flint was not only mined but manufactured on the spot and widely distributed from this center), Saint Symphorien, and the caves of Goyet, Sureau, Magarite, Montangle, Chaleux and Nutons. The collection includes miners' picks, cores, rudely chipped celts and chisels, hammers, and a variety of flake tools. Of bone implements there are casts of darts, points, daggers, harpoons and polishers, and celts and chisels made of deerhorn. Besides single animal bones, as the humerus, radius, calcaneum, etc., of the reindeer and ibex, there is a set of well-executed casts of the skulls and lower jaws of the brown bear (*Ursus arctus*), grizzly bear, the cave bear, the cave hyena, the elk, wolf, glutton, chamois, and goat.

SWITZERLAND.

Switzerland is represented by a considerable and varied collection of material coming in the main from the several settlements of the lake dwellers (see above the description of the lake dwellings, page 422) and from the cave of Kesslerloch (so-called because it has been a frequent place of resort of traveling tinkers), near Thayingen on Lake Constance. The collection comprises a wooden model of a lake-dwelling settlement and a variety of stone implements, chipped and polished. Among the latter may be mentioned finely worked

perforated hammers and celts,[8] and numerous chisel-like blades of nephrite and jadeite mounted in sockets of deerhorn, besides grinding and mill stones. The clay material includes a large collection of well-preserved pottery, some of large dimensions, spindle whorls, large clay rings, which were probably used as stands for vessels with rounded bottoms. Then an assortment of agricultural products, as various grains and fruits, threads and pieces of cloth and fishing nets, all in good preservation from having been carbonized. In the osseous material are represented the ox, pig, goat, deer, hare, etc.

YUGOSLAVIA (CROATIA).

There are from this region only a few casts of stone implements which were found with the remains of the Krapina man.

GREECE.

The small collection of obsidian cores and flakes came chiefly from Crete.

GERMANY.

The German prehistoric collection comes in the main from the islands on the Baltic Sea, with small contributions from the cavern of Taubach, near Weimar, and from Thuringia. It includes various flake tools, including Mousterian points and lunate knives, polished and perforated celts and ax hammers, chisels and gouges, daggers and spearheads, spindle whorls, and fragments of pottery, bones and teeth of the bison, rhinoceros, cave bear, and horse.

RUSSIA.

Russia is represented by a small collection of crude chisels, arrowheads, spearheads, and flakes of slate, and quartzite schist from Vladivostok, fragments of pottery, decorated with cord impressions, from Novgorod, and other pottery fragments, one containing car-

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[8] Axes and hammers pierced for the reception of a handle, and thus approaching in character corresponding iron implements in use at present, were for the most part manufactured from varieties of greenstone (diorite or diabos), basalt, or granite and similar rocks. Pierced implements of flint do not occur, as the hardness of this kind of stone rendered the drilling process difficult. Two different methods at least seem to have been employed in drilling. One with a hollow, cylindrical or tubular drill, probably of oxhorn or hollowed-out deerhorn aided by sand. This is evidenced by the presence of cores or lumps often left in the perforations. The other was done with a solid drill, probably of wood, operated by a bow drill, similar to that used in producing fire. In either method hard sand and water were applied. In some cases the hole on both sides tapers toward the middle, having the form of an hourglass, due to drilling from both sides with a solid point. In some rare instances the perforation is oval instead of round. The drilling was undertaken after the stone had been ground into the proper shape, as shown by many specimens with unfinished borings. The more finely finished specimens were probably not used as tools but as weapons, or, more likely, as badges of rank or command by chiefs, as the edges of the axes are usually too blunt for cutting purposes, and all of them, though sometimes expanded at the perforated part, would easily break at the shaft hole by hard usage.

bonized human bones from a tumulus near Chernigov. From tumuli in the neighborhood of Kiev in southern Russia (Ukraine) came a collection of rudely decorated pottery, bone ornaments, fragments of wood, pieces of charcoal, scoria, ochre, and baked earth.

SCANDINAVIA.

There may be first noted a collection from the Danish kitchen middens. The kitchen middens (*kjokken moddings*) are heaps of shells, principally those of the oyster, scattered along the Danish coast. They are accumulations of kitchen refuse of the peoples who lived on these sites and fed largely on shellfish and such animals as could be procured by hunting. These refuse heaps formed in course of time large mounds. Over 150 of these heaps are known in Denmark, sometimes 10 feet in height and nearly 350 feet in length.

The industrial remains usually found embedded in these mounds consist of roughly chipped flint implements, a few pointed implements of bone and horn, and some coarse pottery. The typical flint implement of the kitchen middens is the so-called tranchet, a wedge-shaped hatchet, usually made by transversely dividing a large oblong flake, having one straight, incisive lateral edge, into two or more sections. One end of each chisel-like section retains the sharp edge of the original flake, which is usually left untouched, while the sides and top are chipped into shape for hafting.

The animal bones found in the shell heaps are chiefly those of the stag, roe deer, and wild boar. The long bones have been broken to extract the marrow, which shows that the people of these settlements lived in part on the products of the chase. They appear to have had no knowledge of agriculture, and their only domestic animal was the dog.

It is generally supposed that the kitchen middens of Denmark represent one of the earliest stages of the Neolithic period and that they contain the oldest traces of man in the Scandinavian Peninsula, where, thus far, no remains of a Paleolithic industry have been found.

The remains from the kitchen middens include flint flakes, tranchets, points, chisels, hammerstones, and cores, bones of the red deer, roe, boar, and domestic dog, besides shells, fishbones, and bones of birds.

From a later phase of the Neolithic period both Sweden and Denmark are represented by considerable collections of finely worked stone implements, both chipped and polished, such as celts, perforated axhammers, square chisels, gouges, lunate knives and saws, daggers and spearheads, arrowheads, various bone implements, spindle whorls, and pottery fragments.

Remains of the Stone Age from Asia.

INDIA.

From India there is a collection of Paleolithic implements of quartzite corresponding to the Chellean and Acheulean hand axes of Europe. They were washed out of Pleistocene laterite (red ferruginous clay) alluvium containing quartzite bowlders in the districts of Boondi and Gazeepet, Madras Presidency. Polished celts and chisels of basalt and trap rock come from the Banda District, Northwest Province. A small collection of bone fragments of pig, vertebræ of fish, shells, and pottery fragments hail from the Andaman Islands in the Bay of Bengal.

There is also a large collection of minute chipped implements, found by A. C. Carlyle, formerly of the Archaeological Survey of India, in the caves and rock shelters of the Vindhya Hills, Central India. The implements, varying in size from half an inch to one and a half inches, are made of a variety of siliceous rock—jasper, chert, hornstone, flint, agate, and chalcedony—and in various forms, as crescentic, rhomboidal, trapezoidal, quadrilateral, triangular, and slender-blade form. These "pygmy tools" have been found in widely separated parts of the world and are generally attributed to the Neolithic period. Various uses have been ascribed to them, such as that of arrowheads, fish snags, lateral barbs of harpoons, or piercers. But they may have had various uses. Few of them show any signs of wear.[9]

CAMBODIA, INDO-CHINA.

The objects from Cambodia were found in the shell heaps or kitchen-middens, situated near the shores of Lake Ton-le-sap, which have been explored by Prof. L. H. James. The shell heaps, varying in depth from 13 to 29 feet, and covered by deposits of alluvial soil, the deposit of annual floods, are composed of three layers marking three different cultures. The upper layer, which was also the thinnest, contained bronze implements and ornaments together with some finely worked stone implements, and pottery decorated with geometrical designs characteristic of the Bronze Age. In the middle stratum were found objects of stone mixed with those of copper and bronze, which may be assigned to the transition period from the use of stone to that of metal. In the lower and deepest stratum were embedded stone implements and pottery characteristic of the Neolithic phase of culture.

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[9] Compare Thomas Wilson, Minute Stone Implements from India, Report of the U. S. National Museum for 1892, pages 455–460.

From the size of the shell heaps, which must have required a long period for their accumulation, and from the fact that some of them are more than 50 miles distant from the great lake, so that at the time of their formation the margin of the lake must have extended to the site of the shell heaps, it is inferred that the Neolithic period was of exceptionally long duration in this region.

The collection consists of polished celts and chisels, rectangular and squared with square tangs for hafting. The slight thickness of these implements as also the poor quality of the stone (shale and feldspar) would indicate that they were intended not for practical use but for ceremonial or ritual purposes. It includes finely polished gouges, tubular and flat rings of black stone and a variety of ornaments—rings, bracelets, anklets, perforated beads made of shells belonging to the genera *Tridacena* and *Hippopus*, besides bone implements and ornaments, perforated animal teeth, clay cones and cups.

PALESTINE.

Palestine is represented by a collection of flint celts of the Chellean type, found near Raphaim, Neolithic flint chisels and flake tools found near Jerusalem, and flint flakes, representing the section of two flint sickles, showing polish from use, found near Gezer.

TROY.

The site of ancient Troy, the modern Hissarlik, in the northwest corner of Asia Minor, was explored by Dr. Henry Schliemann (1822–1890) during the years 1870 to 1882. He laid bare the remains of a series of ancient settlements one above the other. The collection here exhibited was found by him at various depths. It was presented to the National Museum by Mrs. Schliemann in 1893.

The collection includes polished celts and chisels of basalt, hammerstones and rubbing stones, bone implements, terra-cotta balls and weights, ivory plaques, probably representing idols, a number of characteristic pottery vessels and some bronzes.

JAPAN AND KOREA.

The remains of the Stone Age in Japan are chiefly found in shell heaps, resembling the kitchen-middens of Europe. They occur near the coast, and in those parts of the islands which had been inhabited by the ancestors of the Ainos who occupied Japan long before the modern race of the Japanese. Most of the stone implements consist of roughly worked slate; but there are also some well-finished, polished celts, so that no dividing line between Paleolithic and Neolithic can be drawn. The numerous remains of handmade pottery, in fragments as well as in almost perfect vessels, would indicate that

this whole culture was Neolithic. The stone implements include, besides hatchets, knives, arrowheads, and drills. Especially characteristic are the "thunder-mallets," or "stone-mallet-swords," and the crescent-shaped knives with projecting knob at the butt or back, probably designed to afford a hold in binding it to a thong.

The personal ornaments appear in shape of stone and clay rings, beads, and comma-shaped objects, called *magatama* ("crooked jewels"). The pottery decorations show great variety in form and motive.

The bones occurring most frequently are those of the deer, boar, fox, bear, and, occasionally, dog, wolf, and monkey. Human bones are found in the shape of fragments of the tubular bones, such as the humerus, radius, ulna, etc.

The small collection from Korea includes rude celts and chisels of trap rock, polished celts of quartzite, polished and carved daggers and spearheads of shale, polished arrowheads, semicircular knives, notched, or hour-glass-shaped implements, amber beads, and "crooked jewels."

Remains of the Stone Age From Africa.

EGYPT.

Most of the Egyptian stone implements have been picked up upon the surface of the desert where relics of various ages are found mingled, and as a rule there is little to determine their age other than their form and the condition of their surface, as no animal remains belonging to species now extinct have thus far been found in an undisturbed stratum in Egypt. But it is commonly agreed that the northeast corner of Africa was occupied by man at a very remote period. The implements resembling those found in the river-drifts of Europe may therefore be referred to an early age, while the finely chipped implements, such as knives, lance-heads with ripple flaking and serrated edge, etc., which are in delicate workmanship only comparable with the Neolithic products of Scandinavia, may be assigned to the period immediately preceding the dawn of history.

The use of stone implements in Egypt was not confined to the prehistoric period, but was continued for domestic and ceremonial purposes into historical times.

The considerable Egyptian collection comes largely from the province of the Fayum, west of the Nile, from the ancient quarry sites and workshops in the Wady el-Sheikh, east of the Nile, opposite el-Fent, Middle Egypt, and from the Valley of the Kings. The collection includes a large number of rude bladelike implements, triangular, pyramidal, leaf and lozenge-shaped, some with one edge curved

or convex, the other straight, assuming a lunate form. Some are rudely chipped on both edges, others on one edge only. They were found on the surface, around shallow pits from which the chert had been extracted. Many of them have been broken in the manufacture, and the two fragments have often been exposed to the weather and the rays of the sun on opposite faces, so that when joined together they show different degrees of patination. Then flake tools, celts, chisels, gravers, Mousterian scrapers and points, side scrapers, gravers, shouldered knives, sickles and saws, arrowheads, spearheads, crescent-shaped implements, etc.

ALGIERS.

From Algiers in North Africa there are only a few flakes and cores, shell beads, fragments of bones and of pottery.

SOMALILAND.

The collection from Somaliland in East Africa comprises chipped celts, scrapers, points, knives, etc., of quartzite. The form of the larger implements is very similar to that of those from the river gravels of Europe (The Chellean and Acheulean hand-axes or bouchers), while the smaller implements, mostly points, resemble the Mousterian equivalents.

SOUTH AFRICA.

The collection from South Africa (Cape Colony and Transvaal) consists of a variety of flake tools, celts of the Acheulean type, digging and rubbing stones, pottery fragments, and human bones.

AUSTRALASIA.

It is generally assumed that man came at a very early time to Australia. The original inhabitants known to history were related to the Melanesians, as also to the Negritos of the Andaman, Moluccas, and Philippine Islands. The now extinct Tasmanians represented the last remnant of these primitive aborigines. The present Australian natives came later and drove out the aborigines to the adjacent islands.

At the first arrival of white men in Australia, in 1788, when they established in the neighborhood of Port Jackson a penal colony, the natives were estimated to number 150,000. In 1891 they had dwindled to 30,000. They usually live in hordes not exceeding a hundred members. Occasionally these hordes coalesce into tribes. When left to themselves they continue to live in the Stone Age. Their principal occupation is hunting. Their implements consist of stone axes, knives, scrapers, chisels, and saws, all roughly made and

corresponding closely to the Paleolithic forms, though occasionally polished. They also employ bones, shells, and wood for the manufacture of tools, and make simple baskets.

The collection in the National Museum consists of polished and partly polished celts of lava and trap rock, a spearhead of quartzite, rude points and scrapers, chips, and bones of a dog.

TASMANIA.

Tasmania is an island of Australasia in the southern ocean, 150 miles south of the colony of Victoria, from which it is separated by Bass Straits. It is a British colonial possession and has an area of 26,216 square miles. It is named after the Dutch navigator, Abel Janszoon Tasman, who discovered it in 1642.

The aborigines became extinct in 1876, except a few half-castes who survive. They remained in the lowest stage of culture, lower even than that of the Paleolithic man of Europe. They lived on the chase of animals, which they roasted whole in the skin, and on shellfish, which they obtained by diving. Cooking by boiling and the art of fishing by hook or net were alike unknown to them. They wielded a wooden spear and a sort of knob berry. Fire was obtained by stick rubbing. They had rafts, or floats, but no boats. Their fundamental stone implement was a hand-grasped rude knife, or scraper, generally chipped only on one side and quite devoid of symmetry. The long cutting implements, characteristic of the stone industry, both of the Paleolithic and Neolithic periods of Europe, are absent. Next to these most primitive implements, and used for cutting, scraping, sawing, chopping, etc., may be mentioned the anvil, a chipped round stone plate upon which the animal bones were broken to extract the marrow, using another stone as a hammer. Flint being unknown in Tasmania, the aborigines used a fine-grained sandstone or phthanite, which is not as tractable as flint, and this may partly account for the limited variety of the stone implements of the Tasmanians and the inferiority of the workmanship.

The collection includes a hammer and anvil, cores, knives, and scrapers.

Ancient Bronzes.

Bronze antiquities belong to the period when stone was gradually falling into disuse, and iron was either practically unknown or only partially adopted for tools and weapons. The beginning and duration of this period varied in different countries, and was overlapped by the stone age on the one side and by the iron age on the other. No two prehistoric periods can be separated by a hard

and fast line, and the terms "Stone Age," "Bronze Age," and "Iron Age" denote rather stages of human culture than divisions of time. In a general way it is assumed that the use of metal, which constitutes one of the most important steps in human progress, began 3000 to 4000 B. C.

The oldest piece of bronze so far known is a rod found in the pyramid of Medum, Egypt, which is held to date from 3700 B. C., while Babylonia can show a bronze statuette of Gudea from about 2500 B. C. The beginning of the Bronze Age in Europe is set in the period between 200 and 1800 B. C.

By the word "bronze" is designated in archeology a mixed metal composed chiefly of copper with an alloy of tin, the latter ranging from 20 to 9 per cent. Besides copper and tin there are found in ancient bronzes appreciable quantities of silver, gold, and zinc, although the alloy of copper and zinc, known as brass, was almost unknown in antiquity.

It is probable that in some parts of the world copper was the first metal of which implements were made, and that its use may have continued for some time before it was discovered that the addition of a small portion of tin not only rendered it more readily fusible but added to its elasticity and hardness. But there is no evidence of a "copper age," or of a universal stage of culture characterized by the sole use of copper. There is also no doubt that gold was known in some parts of Europe in the Neolithic Age, and it may possibly have been the first metal worked in this part of the world.

The use of bronze was far more extensive and varied in ancient than in modern times. It was employed not only for decorative purposes, but also in the manufacture of furniture, household utensils, armor, and other objects.

Several processes were employed by the ancients for the production of works in bronze: For implements and utensils, hammering and casting; for statues, solid casting, beaten plates riveted or welded together, and hollow casting; for reliefs and decorative work, chasing, and repousse work.

The collection of bronzes in the museum comprises tools, as celts in their four principal forms, viz, flat, flanged, winged, and socketed celts, chisels, knives, razors; weapons, as swords, spearheads and arrowheads; domestic utensils, as pitchers, pails, bowls, dishes, lamps, strainers, ladles, cups, scales, etc.; chirurgical instruments; ornaments, as fibulae, finger rings, earrings, bracelets, anklets, mirrors, ets., besides masks, helmets, stamps, human and animal figurines, etc.

THE ARCHEOLOGICAL COLLECTION OF HISTORIC TIMES.

(For a more detailed description of some of the important specimens see the section "Guide to the Collections of Old World Archeology").

EGYPTIAN ANTIQUITIES.

The remains of ancient Egypt are chiefly of a sepulchral character. The collection in the National Museum includes a human mummy and several mummified animals. Several coffins, funerary boxes and cones, a considerable number of ushabti figurines, a set of Canopic vases, a Greco-Egyptian painting, Greco-Egyptian inscribed papyri, a collection of mummy cloth, necklaces, scarabs, amulets, pottery ranging from the predynastic times down to the Greco-Roman period. The later Christian period is represented by a collection of Coptic cloth. Of sculpture there are an original stone sphinx and casts of statues and busts of the chief divinities and the great historic rulers, besides reliefs. Facsimiles of the Book of the Dead, casts of the Rosetta and Canopus Stones, squeezes from the tomb of Taia, etc.

BABYLONIAN AND ASSYRIAN ANTIQUITIES.

They consist mainly of casts of sculptures including the Code of Hammurabi, the torsos of Gudea, a stele of Sargon, human-headed winged lion and bull, the black obelisk of Shalmaneser II, a boundary stone, besides many reliefs representing genii before the sacred tree or tree of life, hunting and war scenes, and a collection of seals.

HITTITE SCULPTURES.

In the Bible the Hittites are derived from Heth, son of Canaan, the son of Ham (Genesis x, 15). They are described as an important tribe in the region of Hebron (Genesis xxiii, 2), and are often mentioned as one of the seven principal Canaanitish tribes, and sometimes as comprising the whole Canaanitish population (Joshua i, 4). From Abraham (Genesis xxiii) to Solomon the Hittites came more or less in contact with Israel. Numbers of them remained with the Jews even as late as the time of Ezra and Nehemiah (Ezra ix, 1). Hittite kings are mentioned as living north of Palestine (I Kings x, 29; II Kings vii, 6), and some writers call them Syrian Hittites to distinguish them from the Canaanite tribe. Recently the Hittites have been identified with the *Kheta* of the Egyptian and *Khatti* of the Assyrian monuments.

From the inscriptions on these monuments it is gathered that this people at an early period were a mighty power, ruling for a time the territory from the Euphrates to the Ægean, and being a rival of Egypt and Assyria.

Of late there have been added to the Biblical, Egyptian, and Assyrian sources numerous monuments which were discovered throughout Asia Minor and northern Syria. These monuments, mostly of black basalt, contain representations in bas-relief of religious objects, winged figures, deities standing on various animals, sphinxes, griffins, the winged disk, as symbols of the deity, the two-headed eagle (which became the standard of the Seljukian Turks, and afterwards of Austria and Russia), and hieroglyphic inscriptions in lines alternating from right to left and left to right, called *bustrophedon*, besides inscriptions in the cuneiform characters of Assyria and Babylonia. The foremost center of Hittite power was at modern Boghaz-Keui, in Cappadocia, Asia Minor, where in 1906 remains of palaces and an archive of clay tablets inscribed in Babylonian characters were discovered.

The casts from the Hittite reliefs in the Museum collection include divinities, kings, warriors, sphinxes, griffins, composite beings, and scenes from the chase.

PERSIA.

Persia is represented by casts of the inscription and the warrior from Persepolis.

SYRIA AND PALESTINE.

The antiquities from Syria and Palestine may be designated as "Biblical Antiquities." They include casts of some of the inscriptions found in Palestine, as the Moabite Stone, the Siloam inscription, and the Temple stone; also objects illustrating Biblical passages, as millstones, sling, trap, and various ornaments; a collection of coins from Bible lands; precious stones and musical instruments mentioned in the Bible. Also a few specimens of the geology and flora of Palestine, a large relief map of Palestine and casts of the colossal statue of the god Hadad and of the torso of King Panamu II from Syria.

ARMENIA.

The territory which once formed the kingdom of Armenia is the table-land situated between Asia Minor and the Caspian Sea, inclosed on several sides by the ranges of the Taurus and Anti-Taurus, and partly traversed by other mountains, the highest of which is the volcanic peak of the Ararat mentioned in the Old Testament.

The collection from Armenia, which consists of pottery, bronze torques, bracelets, pendants, pins, shell beads, iron spearheads and knives, was obtained from the ancient necropolis of Monci-yeri, near Allahverdi in the Caucasus.

TURKESTAN.

From Turkestan, Central Asia, there is a collection of pottery and fragments of tiles, dating from the eleventh and twelfth centuries, A. D.

TEREK, CAUCASUS.

The collection, which was taken out from a tomb near Terek, consists of copper and bronze pieces—pins, rings, bracelets, anklets, buckles, and fragments of handles, etc.—colored glass beads, and pottery fragments.

GRECO-ROMAN ANTIQUITIES.

The collection comprises a set of casts of statues and busts of the major and minor divinities of the Greco-Roman pantheon. A wooden model of the Parthenon. Casts of reliefs illustrating some episodes of Greek mythology, as the battle of the gods with the giants and of the Centaurs with the Lapithi, etc. A Roman mosaic from Carthage. Reliefs from the Triumphal Arch of Trojan at Beneventum. Votive tablets and sepulchral stellae. Plaster casts and electrotypes of engraved gems. The minor or domestic arts are represented by a collection of painted pottery and terra-cotta figurines.

GREEK AND ITALIAN POTTERIES.

The manufacture of vases was an important industry in early prehistoric times in Greece and on the adjacent islands of the Archipelago.

The potteries found on the site of ancient Troy (modern Hissarlık, Asia Minor) are still crude, mostly handmade and unpainted, and often in the shape of a rudely modeled human figure.

In the vases of the "Mycenaean civilization" (about 1500 to 1000 B. C.), so called after the city of Mycenae, which was its center, artistic feeling begins to appear. The vases are all wheel made and varied in form and decoration. The favorite designs are bands and spirals, plants, leaves, and marine animals (cuttlefish, octopuses, etc.).

Next follow the geometric pottery, in which the decoration is composed of patterns in lines on a regular plan and measurements, such as zigzags, meanders, and concentric circles. The most interesting and important variety of this style is the pottery, painted with naval battles and funeral processions, found in the cemetery near the Dipylon (double gate) of ancient Athens and hence called Dipylon vases. This style of decoration prevailed from about 1000 to 800 B. C.

About the middle of the eighth century, B. C., the "orientalizing" style came into vogue, characterized by an ornamentation in bands or zones, recalling that of Oriental carpets. The vases so treated are called "Corinthian." The ground is light yellow or cream colored; the conventionalized figures between the bands are reddish-brown, heightened with white, black, and violet; flowers, leaves, and rosettes are scattered over the ground.

The height of development was reached in the sixth and fifth centuries B. C., in the vases produced in Attica, Greece. According to the disposition of the colors, two styles were distinguished in the painting of the potteries of this period—the "black-figured" and the "red-figured" style. In the former, which lasted till about the year 500 B. C., the designs were (silhouettelike) on red ground; in the latter the design stood out in red color against the black glaze which covered the remaining surface of the vase. These two kinds of vases are sometimes called "Etruscan" because great numbers of them have been found in the tombs of Etruria, but it seems certain that nearly all of them were made in Greece, at least in the fifth century, and that all the finer vases discovered in Etruria are of Athenian origin.

The subjects depicted on the vases illustrate Greek life in all its aspects: Myths of the gods, story and legend, the school and gymnasium, the stage and many scenes from everyday life. The chief forms of the vases are: Amphora, so called from its two handles, used to hold liquids as well as grain, and always egg-shaped in form; pelike, a development of the amphora, in which the foot is done away with and the body swells out from the handles downward; crater ("mixer"), used for mixing water with wine before serving it in cups to guests at banquets; oenochoë ("wine pourer"), used for dipping the wine from the crater and pouring it into goblets, also for pouring water on the hands of guests at banquets and for libations to the gods; kylix (chalice), the favorite drinking cup at banquets; hydria (water jar), used almost exclusively for carrying water, and provided with three handles—a large one at the back for carrying when empty and two smaller ones at the sides for carrying when full; skyphus, originally a wooden bowl used by the peasantry for milking, later made in metal and clay and used as a drinking cup, and sacred to Herakles (Hercules); aryballus, an oil flask used in the bath; alabastron, so called from the material of which it was originally made, generally used for ointments and perfumes in the toilet, but sometimes also for funeral purposes. Both the aryballus and the alabastron have a flat top with small orifice, and a globular or cylindri-

cal body. Lekythus, originally an oil flask, was chiefly used for funeral purposes.

In the fourth century B. C., important potteries were also established in southern Italy (Lucania, Apulia, and Campania), which in general followed Athenian models, though developing local variations of style. About the middle of the third century B. C. the manufacture of painted vases ceased, even in Italy. They were superseded by vases decorated with reliefs ("Megarian bowls" and "Arretine ware").

In the Museum's collection of pottery nearly all the forms enumerated above are represented and range in date from the seventh century B. C. to the first century A. D., including the Roman black vases (so-called *Buchero*) and the Arretine red ware (also incorrectly called "Samian"), which was a characteristic product of the Romans, deriving its name from Arezzo (the ancient Arretium) in Tuscany, Italy, the chief center of its manufacture.

Another collection of pottery, ranging in date from the middle of the second millenium to the end of the first millenium B. C., may be roughly assigned to the countries around the Mediterranean Sea, viz, Phenicia, Syria, Cyprus, Egypt, Greece, etc.

ANCIENT TERRA COTTAS.

Terra-cotta statuettes have been found on nearly all the famous sites of antiquity, from Babylonia to north Africa, and from Sicily to the Crimea in Russia. The earliest go back to the second millenium B. C., and their manufacture continued down to the end of the first century A. D. The subjects represented in these statuettes are: Figures of deities; mythological subjects; scenes from daily life; caricatures; masks, animals, and toys. Most of these represent female figures, seated or standing, with a high headdress, or with a veil or part of the upper garment drawn over the head. Sometimes they hold a child or carry an animal or fruit.

As these figurines have chiefly been found on sites of former sanctuaries or in tombs, it is assumed that they were originally intended for religious purposes, but in time lost this significance and were used by the Greeks as ornaments in daily life.

The Romans placed these statuettes in their house shrines, but employed them also as toys and gifts and for the decoration of their houses.

The earliest fabrics were modeled by hand and were solid. Subsequently molds were generally used which enabled the making of hollow and light figurines. The head and arms were usually molded separately and attached afterwards, which permitted variations to the figures coming from the same mold, so that no two are alike.

The final touches before firing were given the figure either with the finger or with a graving tool. After the firing the figures were colored, in rare cases, gilded. This has been largely worn off.

The most finished and elegant terra-cotta statuettes are those found in the graves of Tanagra, in Boeotia, Greece, dating from the fourth and third centuries B. C., examples of which, in facsimile, are shown in wall cases in the southeast end of the hall.

The bulk of the terra-cotta figurines in the collection represent female figures, some of them adorned with diadem or crown with an expression of dignity and calm, evidently meant for a goddess, others in various poses, sometimes holding a child or an animal. A small number are of male figures, satyrs, caricatures, and animals. The facsimiles of the Tanagra figurines largely represent mythological scenes.

TERRA-COTTA LAMPS.

Terra-cotta lamps have been found everywhere through the ancient domain of the Roman Empire, mostly in tombs where they were placed for the use of the dead, or with the idea of their burning perpetually. They were used for lighting houses, in processions, as offerings in temples, as New Year's gifts, and for funerary purposes.

The oldest lamps date from the third century B. C. and were made on the wheel, with decorations in incised lines; later they were either modeled by hand or made in molds, with decorations in relief.

The principal parts of the lamp are (1) the reservoir, which contained the oil, (2) the flat, circular top, (3) the nozzle with hole for insertion of the wick, and (4) the handle, which was not indispensable.

Wicks were made of a plant known as *verbascum* or *thryallis*, but tow and papyrus were also employed. The oil was vegetable oil of some kind.

The average size of the lamps is from 3 to 4 inches in diameter, with a length of about 1 inch greater than the diameter, and they are mostly about 1 inch in height.

The Museum's collection of terra-cotta lamps includes specimens from Egypt, Phenicia, Palestine, Cyprus, Greece, and Italy. The tops of some are adorned in relief with figures of Gods—Jupiter, Zeus with the eagle, Cupid in various postures, etc.—or with human figures, and there are some with the monogram of Christ.

ANTIQUE IRIDESCENT GLASSWARE.

Glass which has for many years been subject to the slowly disintegrating influences of dampness, alternating heat and cold, light, and darkness, etc., displays an iridescent play of colors, due to the forma-

tion in consequence of the decomposition of minute scales or films on the surface that reflect light in colors similar to the delicate hues on the neck of a dove or of soap bubbles.

The Museum's collection of ancient glassware comprises a large variety of vessels: amphoras, pitchers, cups, bowls, dishes, vases, bottles of various shapes, besides bracelets and beads.

ANCIENT ORIENTAL SEALS.

Seals among the ancient peoples served a threefold purpose: (1) to authenticate a document, as does the modern signature, (2) as talismans, and (3) as ornaments. The oldest form of seal is a cylinder. It had its origin in Babylonia, where it can be traced back in the fourth millennium B. C., while in Egypt it goes back to the first dynasties, but there was later superseded by the engraved scarab or beetle. The material of the seals varies from the hardest stones, as porphyry, quartz, hematite, rock crystal, to the soft marble, serpentine, alasbaster, as well as ivory and bone. The engraving, in intaglio, occupies the convex surface. The subjects engraved on them represent either episodes of ancient myths and legends or religious ceremonies. They are often accompanied by inscriptions. The cylinders are generally pierced longitudinally. Through the hole a metal axis was passed, by means of which it was rolled on the soft clay, which was the writing material in the valley of the Euphrates. In the time of the Assyrian Empire, in the seventh century B. C., the cone, usually of chalcedony or carnelian, begun to replace the cylinder seal. In the Persian period the cone seal developed into the hemispherical or flattened into the shape of a finger-ring.

The Museum's collection has nearly a hundred original seals, mostly cylinders, and upwards of three hundred flat casts.

COINS AND MEDALS.

The collection of upwards of 500 specimens comprises Greek coins, beginning with Alexander the Great, Roman coins of the Republic as well as of the Empire, Byzantine coins, Papal and other Italian coins, besides small numbers of Carthaginian, Armenian, and Mohammedan coins.

ORIENTAL TILES.

The collection, which comes from Turkey and Persia, consists of glazed, enameled, and inlaid tiles and plaques.

COLLECTION OF BIBLES.

The collection includes editions of the Scriptures in the original tongues; facsimiles of the manuscripts of the old versions; several English versions; and translations in modern foreign languages.

GUIDE TO THE EXHIBITION.[10]

The collections of Old World Archeology are installed in the elongated hall on the west side of the second story of the north wing of the Natural History Building and the entire outer end or pavilion of the wing, occupying about 7,926 feet of floor area. The pavilion is mainly occupied by antiquities of Egypt and Babylonia. (pls. 1–3).

1. Wall case on the east side of the pavilion, containing Egyptian coffins and sepulchral boxes. The coffins are made in form of a mummy, of planks, covered with a thin layer of plaster, upon which are painted mythological scenes, figures of the gods, scenes of the nether world, etc. Sepulchral boxes, made of wood, were placed in the tomb to hold sepulchral figures (*ushabti*), papyri, articles of dress, the toilet, and other things. They vary in size from 6 to 8 inches to 2 feet in length. Some are perfectly square, others oblong in shape, and each end rises above the level of the cover. Some have two, and others have three or four divisions. The outsides are usually ornamented with scenes of worship and figures of the gods (pl. 4).

On the wall over the case is an Assyrian bas-relief[11] representing four warriors with spears and shields; on the north side, another Assyrian bas-relief representing a winged figure holding cone and bashed and a eunuch, with an inscription of Ashurnazirpal, King of Assyria, 884–860 B. C., while on the south side are three Egyptian bas-reliefs, representing, respectively, a female bust, two heads of Asiatic captives from Medinet Habu and Rameses III, the second king of the xxth dynasty (about 1180 B. C.).

2. Egyptian mummy in its coffin. Found at Luxor, Egypt, in 1886. Length, 5 feet 6 inches. No hieroglyphics or inscriptions exist either on the mummy or coffin. The face and head are covered with a mask of green cement; the body is delicately proportioned. On the chest lie four small tablets about the size of playing cards, each one having a mummied figure of the god Osiris in a standing position. Two shield-shaped ornaments lie across the breast and stomach, respectively. The upper one bears the sacred beetle (*scarabaeus*) with spread wings, beneath which is the *tet* (emblem of Osiris, also designated as nilometer) between two figures, which support each the sun disk upon the head. At the end of the wings is represented the hawk head of Re, also supporting the sun disk. Over

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[10] Part of the collection relating to Bible lands has been described in a bulletin entitled "Biblical Antiquities: A Description of the Exhibit at the Cotton States International Exposition, Atlanta, 1895. By Cyrus Adler and I. M. Casanowicz. Report of the U. S. National Museum for 1896, pp. 943–1023, with 46 plates."

[11] If not otherwise stated the sculptures described in this pamphlet are casts.

the surface of the shield are painted representations of jewelry (necklaces). On the lower shield appears the kneeling figure of the goddess Nephthys, with extended arms and wings. On either side of her head are two groups of three small figures each. Ostrich plumes appear in the corner of the shield. Along the legs is a sheet of cemented linen, on the top of which is a mummy on a dog-shaped bier; at the head of the bier is a figure kneeling, holding plumes. Further down is a second *tet*, on either side of which a figure with an implement in each hand faces two mummied figures. The feet of the mummy are incased in a covering of cemented linen.

The ancient Egyptians conceived man as consisting of at least three parts: the body, the soul, and the *Ka;* that is, the double or genius. The *Ka* was supposed to remain in existence after death and to be the representative of the human personality. In order that the *Ka* might take possession of the body when it pleased, the latter had to be preserved from destructive agencies and decay in the tomb. To this end the Egyptians mummified their bodies, built indestructible tombs, inscribed the tombs and coffins with magical formulae to repel the attacks of demons, and placed statues, household goods, food, statuettes of servants, etc., in the tomb that "the house of eternity" might as much as possible resemble the home of the deceased.

To arrest the decomposition of the body, the Egyptians embalmed it by means of bitumen, natron, and various drugs or spices. The name given to a body thus preserved was *mummy*, derived from the Arabic (?) word for bitumen, "*mumia*," and "*mumiyya*," "bituminized thing." The native Egyptian names for mummy are *sahu*, or *ges*, "to bandage a dead body." The process of mummifying was of great antiquity in Egypt, probably dating back to the earliest dynasties; it reached the highest perfection at Thebes during the eighteenth and nineteenth dynasties (about 1600 to 1200 B. C.), and the practice is said to have continued to 500 A. D.

The Greek writers Herodotus (ii, 85) and Dioderus Siculus (i, 91) record that the Egyptians employed three methods of embalming, more or less elaborate, according to the wealth and position of the deceased. The most costly mode is estimated at a talent of silver, or about $1,250. After removing the brain and viscera the cavities of the body were rinsed with palm wine, filled with myrh, cassia, and other aromatics, and soaked in natron (subcarbonate of soda) for 70 days. It was then washed, swathed in linen bandages, and smeared with gum. The second mode cost 20 *minae*, about $300. The intestines were allowed to be dissolved by means of cedar oil injected into the abdomen, while the flesh was conserved by natron, in which the body was soaked for the prescribed period.

The third method, employed by the poorer classes, consisted in merely soaking the body in natron. The Biblical record mentions embalming only in connection with the Egyptians, the bodies of Jacob and Joseph, who died in Egypt, having been thus preserved. (Genesis L, 2–25).

EGYPTIAN FUNERAL PROCESSION AND BURIAL.

The coffin containing the mummy was carried to the bank of the Nile in a boat placed on a kind of sled drawn by oxen, and was escorted by priests, mourners, wailing women, and attendants bearing funeral furniture, offerings, etc. The procession embarked and in a short time arrived at the western banks, in the highlands of which the Egyptians usually built their cemeteries, as they imagined the entrance into the hidden land lay in the west where the sun disappeared. Here the procession was re-formed and continued its way to the bluffs opposite Thebes. When the procession arrived at the tomb the mummy or a statue of the deceased was placed in an upright position before the door. Tables loaded with offerings of cakes, beer, fruit, flowers, etc., were laid before it, and a bull was slaughtered, from which an attendant cut off one of its haunches and held it to the nose of the statue. One of the priests performed the ceremony of " opening the mouth," touching the mouth and eyes of the mummy with iron instruments, in order that the deceased might regain the use of his intelligence and limbs which he lost by the process of embalming. During these ceremonies another priest recited the portions of the funeral ritual appropriate to each act from a roll of papyrus. After the slaughter of another bull and the presentation of a number of offerings the funeral ceremony was complete (pls. 5 and 6).

3. Screen. On the east side the screen bears a large relief map of Palestine. The map is the result of geographical and geological survey work, carried on for more than 10 years by experts in the service of the Palestine Exploration Fund, and is made on the scale of $\frac{1}{168960}$, or three-eighths of an inch to the mile. It embraces the whole of western Palestine, from Baalbek in the north to Kadesh Barnea in the south, and shows nearly all that is known of the country east of the Jordan. The natural features of the country stand out prominently, being reinforced by appropriate colors. The mountains and plains are shaded a creamy white. The seas, lakes, marshes, and perennial streams are shown in blue. The Old and New Testament sites are marked in red. The map thus furnishes a most important aid for the understanding of the Bible narrative.

The west side of the screen is occupied by the Siloam inscription and the Greek inscription from the Temple of Jerusalem.

The Siloam inscription was discovered in 1880. It is engraved on a recessed tablet cut in the wall of the tunnel a few yards from its lower end. The latest restoration and translation [12] is as follows:

> The boring through (is completed). And this is the story of the boring through. While yet they (plied) the drill, each toward his fellow, and while yet there were three cubits to be bored through, there was heard the voice of one calling unto another, for there was a crevice in the rock on the right hand. And on the day of the boring through the stonecutters struck, each to meet his fellow, drill upon drill; and the waters flowed from the source to the pool for a thousand and two hundred cubits, and a hundred cubits was the height of the rock above the heads of the cutters.

The inscription is not dated, but the tunnel was probably constructed in the reign of King Hezekiah and is referred to in II Chronicles xxxii, 4 and 30, as follows: "So there was gathered much people together, and they stopped all the fountains and the brook that flowed through the midst of the land saying, Why should the King of Assyria come and find much water? * * * " This same King Hezekiah also stopped the upper spring of the waters of Gihon, and brought them straight down on the west side of the City of David.

The original is preserved in the Museum of Constantinople, Turkey.

The stone containing the inscription from the Temple was discovered by the French archeologist, M. Clermont-Ganneau, May 26, 1871. The inscription reads: "No stranger is to enter within the balustrade round the temple and inclosure. Whoever is caught will be responsible for his death which will ensue." The inscription throws light on the incident in Acts xxi, 28–31, where Paul was accused of bringing Trophimus, an Ephesian, within the balustrade.

The original is in the Museum of Constantinople, Turkey.

Both the map and the inscriptions are surrounded by a series of geographical and ethnographical photogravures, showing various sites and human types of Palestine.

4. Flat-top table case. Contains a selection of Oriental seals, originals as well as flat cast, for which see above, p. 444. On the bottom of the case are some Egyptian antiquities.

The center of the Pavilion is occupied by a mosaic, flanked on either side by two monuments on bases.

5. The Moabite Stone. In II Kings iii, 4 ff. it is related that Mesha, the King of Moab, had paid tribute to the Kings of Israel, but after the death of Ahab he rebelled. Thereupon Ahab's son, Joram, allied with Jehoshaphat, King of Judah, invaded Moab and

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[12] See George A. Barton, Archaeology and the Bible, Philadelphia, American Sunday-School Union, p. 377.

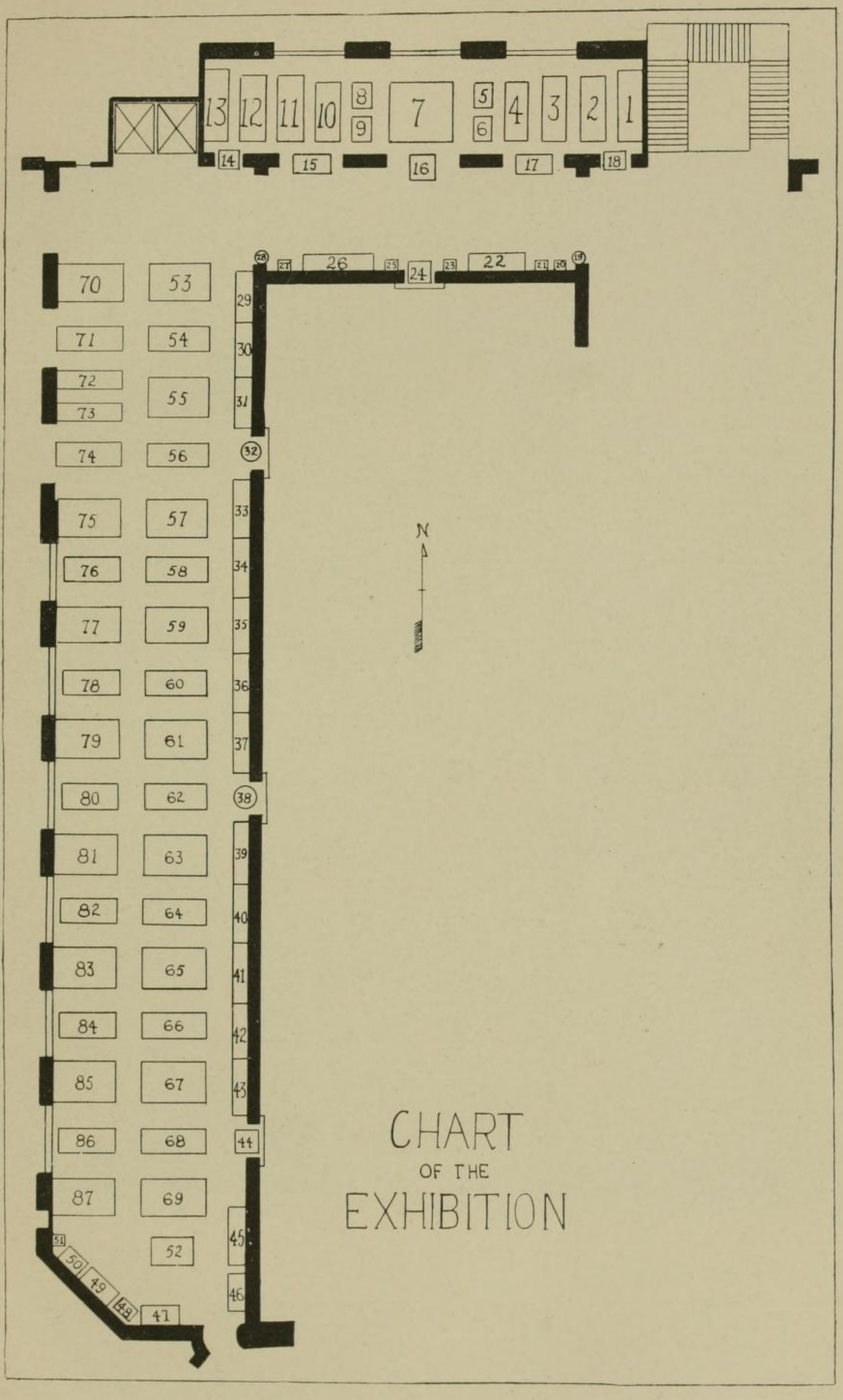
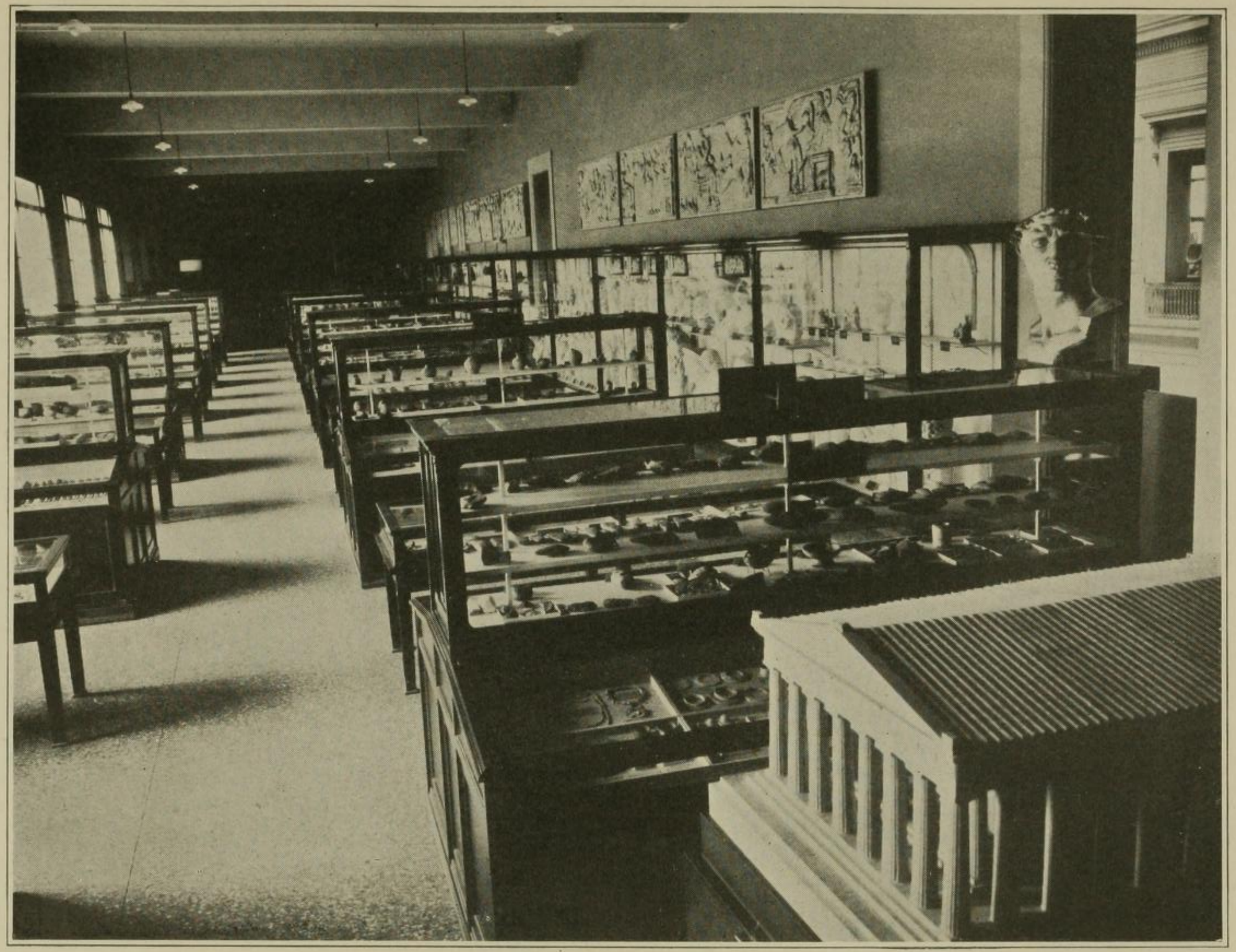
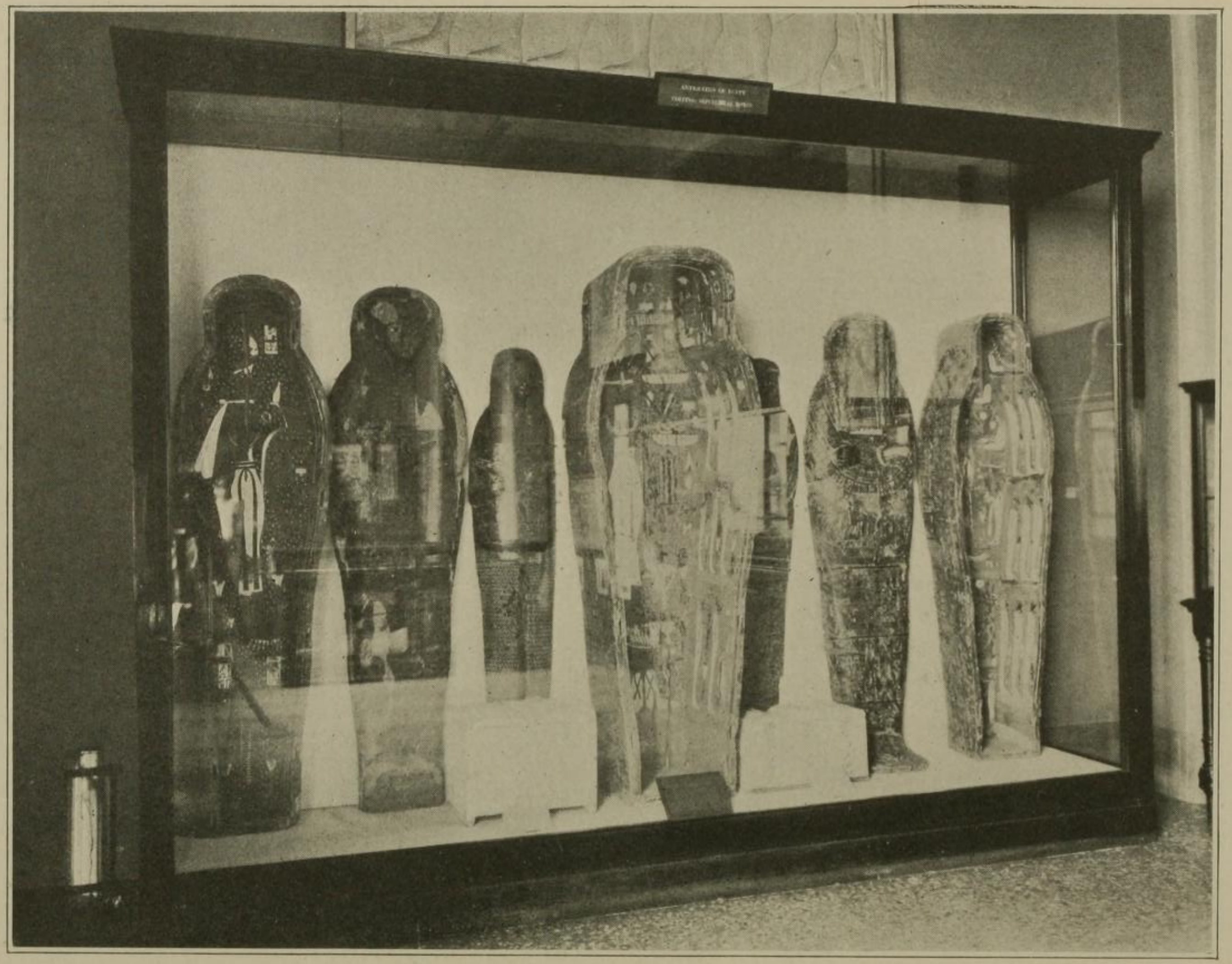


CHART
OF THE
EXHIBITION

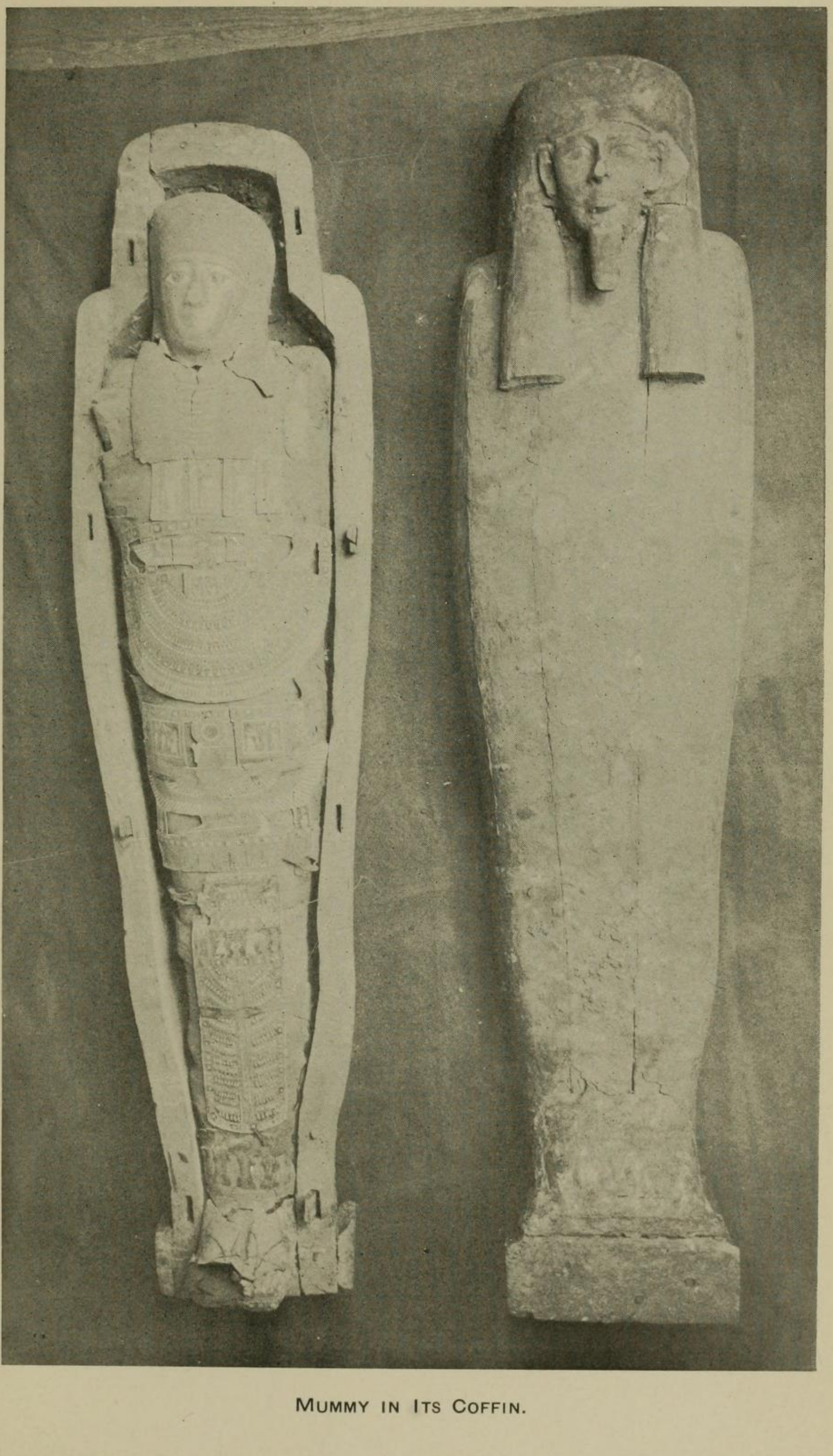
VIEW OF THE HALL FROM THE NORTH SIDE.



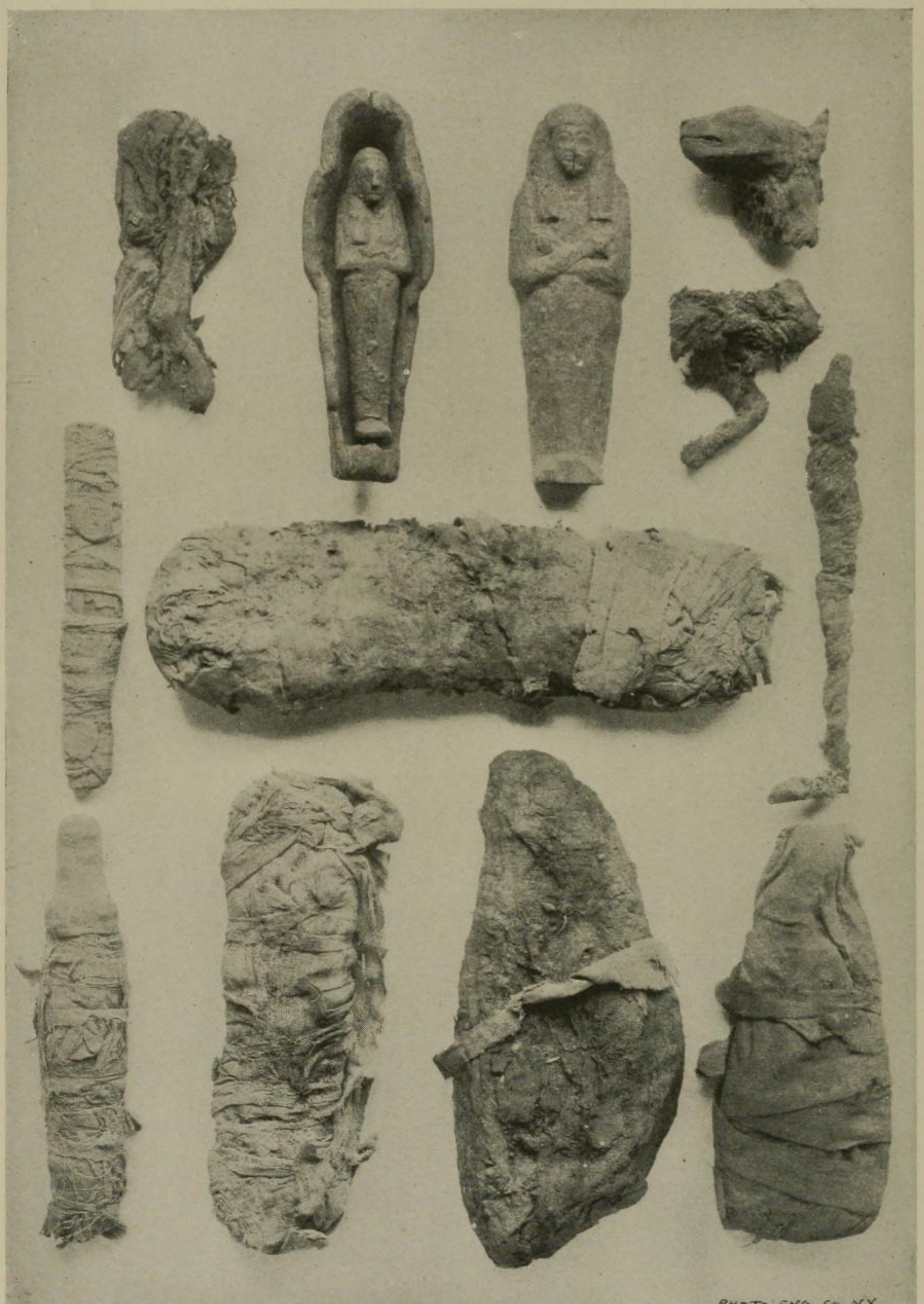
VIEW OF THE HALL FROM THE SOUTH SIDE.



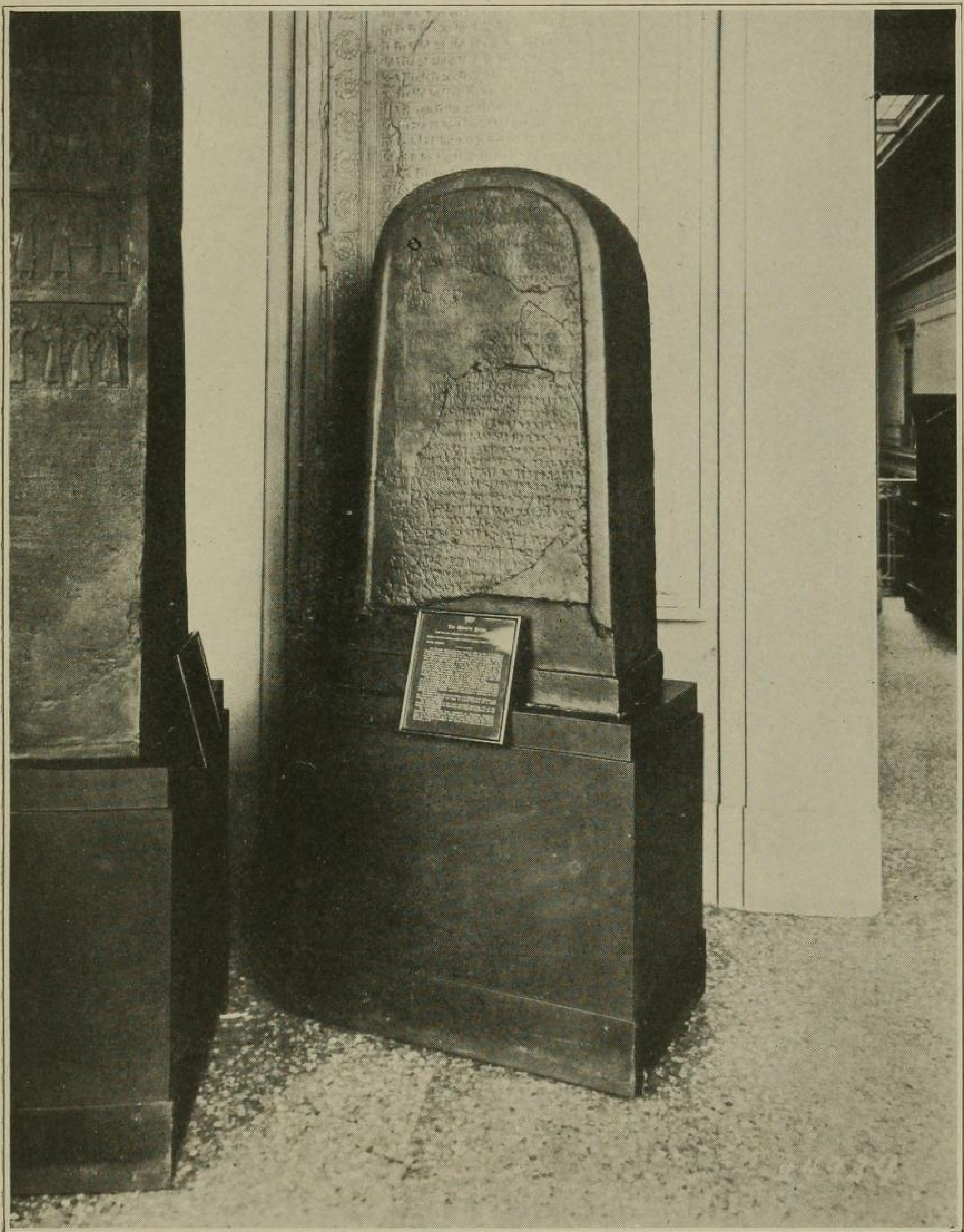
EGYPTIAN COFFINS AND SEPULCHRAL BOXES.



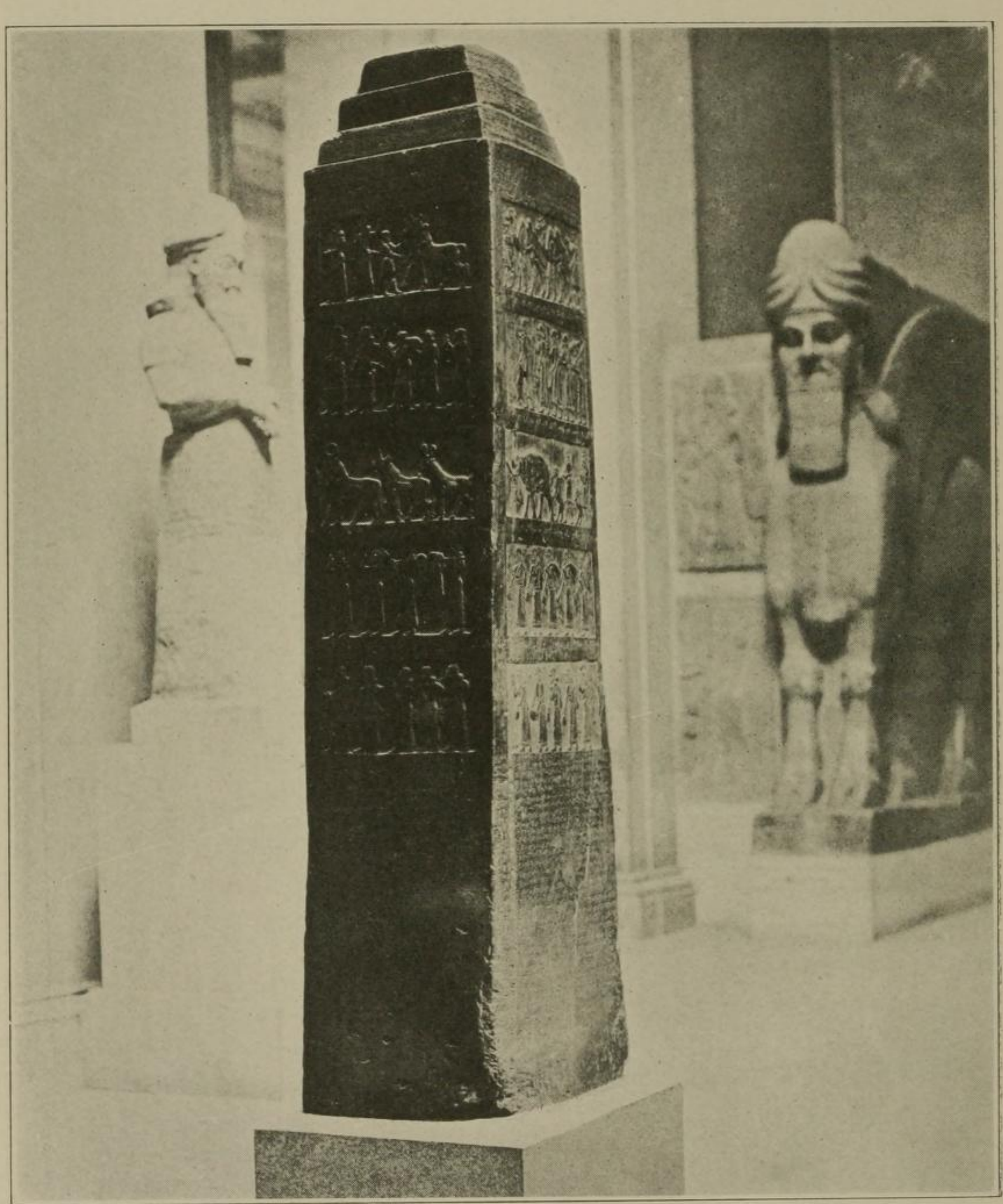
MUMMY IN ITS COFFIN.



WOODEN MODEL OF A MUMMY AND FRAGMENTS OF MUMMIED ANIMALS.



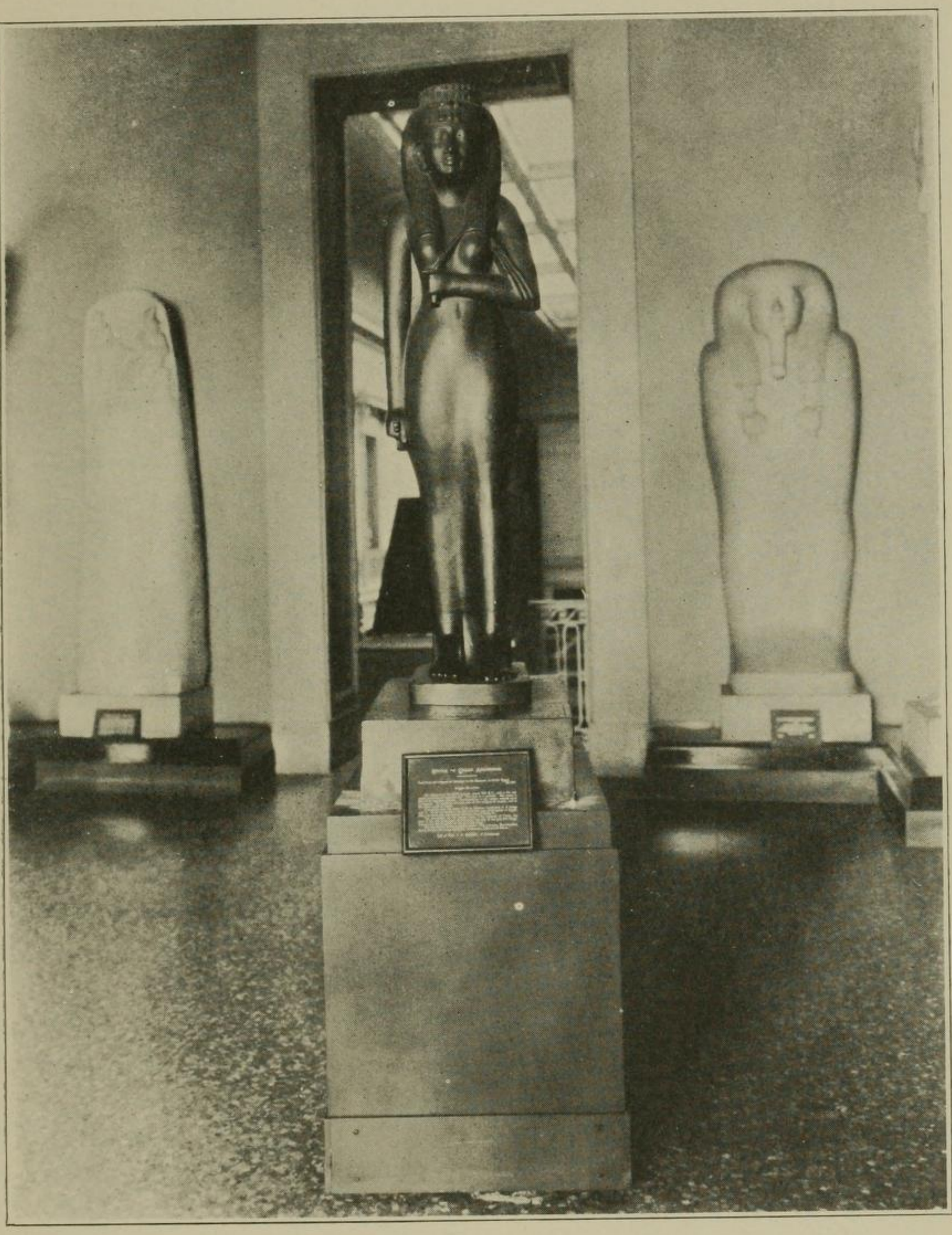
THE MOABITE STONE.



THE BLACK OBELISK OF SHALMANESER.

MOSAIC FROM CARTHAGE: LION ATTACKING A WILD ASS.

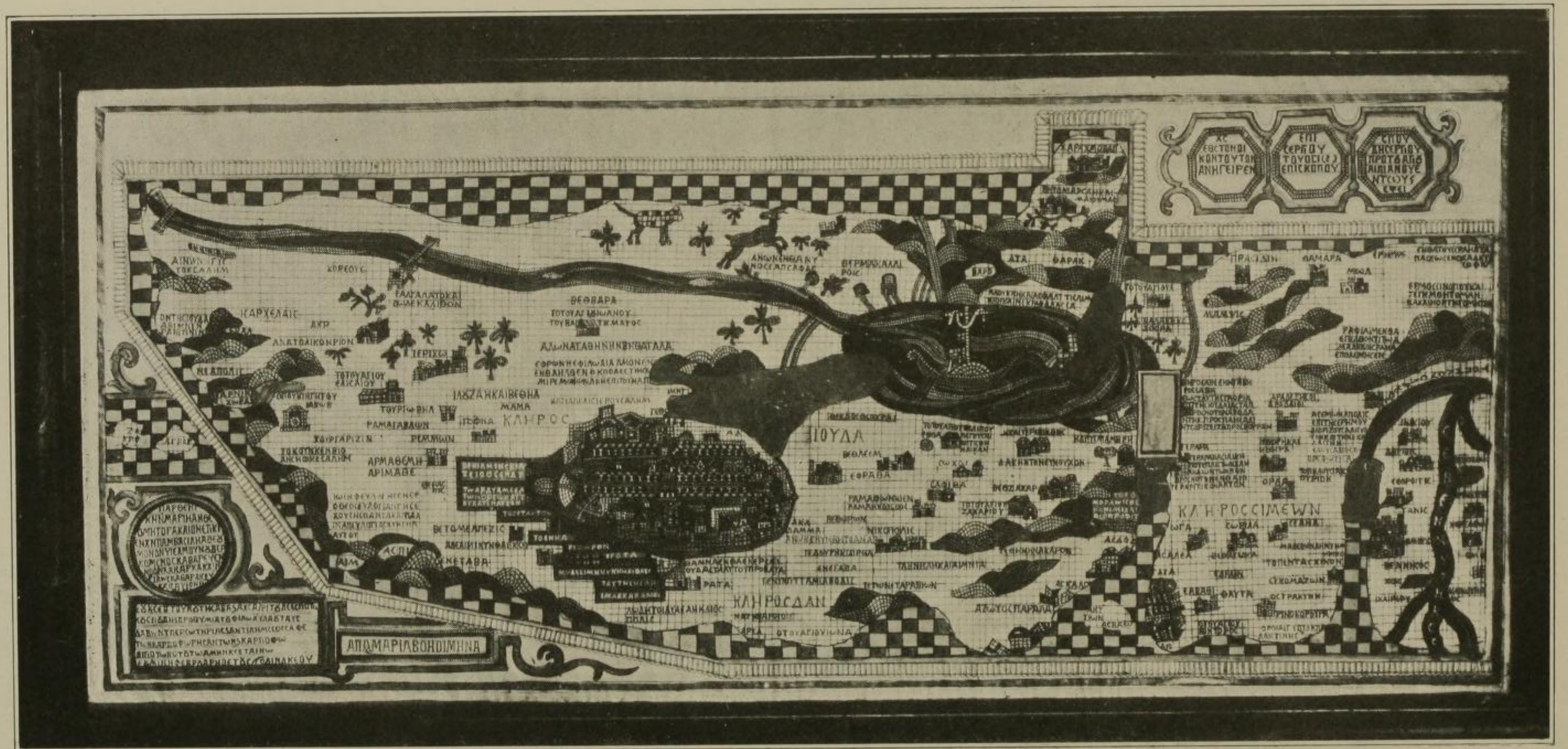
STATUE OF CHEFREN.



STATUE OF QUEEN AMENERDAS.

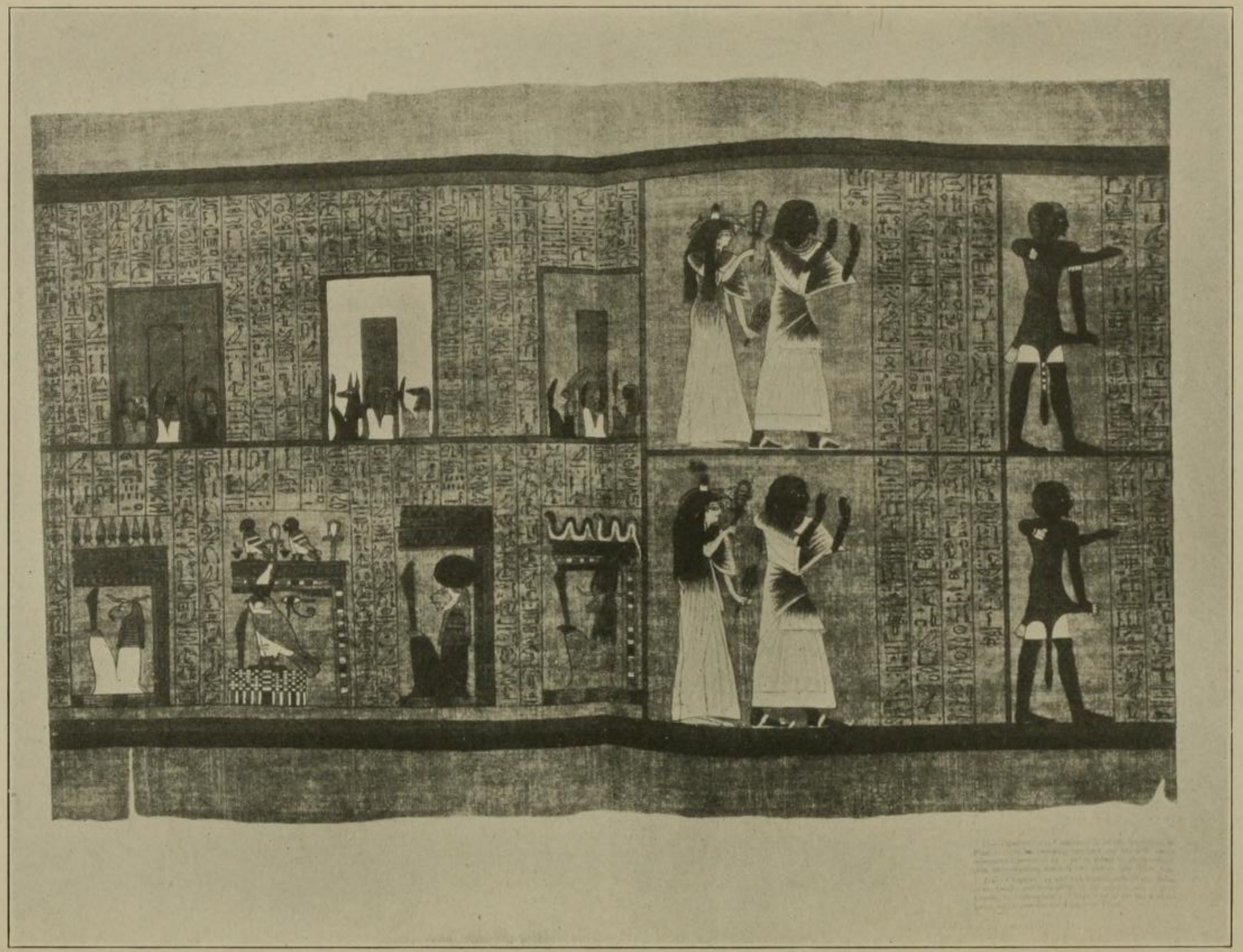
LID OF THE SARCOPHAGUS OF QUEEN ANKHNEFERABRA.

INSCRIPTION FROM PERSEPOLIS.



COLORED DRAWING OF THE MEDEBA MOSAIC MAP OF PALESTINE.

GRECO-EGYPTIAN PORTRAIT.



FACSIMILE OF THE BOOK OF THE DEAD.

shut up Mesha in Kir Hareseth, situated a little to the east of the southern end of the Dead Sea. Mesha, in his emergency, offered his first-born son as a sacrifice, in the presence of the invading army, to Chemosh, the principal divinity of the Moabites, whereupon the Israelites withdrew. Thus far the Biblical account.

In 1868 the Rev. A. F. Klein, a German missionary, discovered at Deban, the ruins of Dibon, the ancient capital of Moab (Numbers xxi, 30; xxxii, 34; Isaiah xv, 2), on the north shore of the river Arnon, a stone or stela of dark blue basalt, 3 feet 8½ inches high, 2 feet 3½ inches wide, and 1 foot 1⅞ inches thick, inscribed with 34 lines, celebrating the achievements of Mesha. The Arabs of the neighborhood, perceiving that the stone was of great value and dreading the loss of such a talisman, broke it into pieces. Fortunately the French archeologist, Clermont-Ganneau, had succeeded in securing a paper impression of the inscription before the stone was broken up. He collected most of the pieces, which, with the aid of his paper impression, were put together and the reconstructed monument is now, together with the impression, in the Museum of the Louvre, Paris, France.

In the inscription Mesha relates that Omri and Ahab, Kings of Israel (I Kings xvi, 21 ff.) oppressed the land of Moab for many years until he recovered several cities from the Israelites, mentioning Medeba (Numbers xxi, 30; Joshua xiii, 9, etc.), Ataroth (Numbers xxxii, 34; Joshua xvi, 2, etc.), and Nebo (Numbers xxxii, 3; Isaiah xv, 2, etc.), where he slew 7,000 people and captured Jahaz, which had been built by the King of Israel, and describes the public works which he undertook and the devastated cities which he rebuilt.

The dialect of the inscription differs only slightly from Hebrew, and the characters employed are those of ancient Hebrew, the so-called Samaritan or Phenician. The Moabite Stone is the most important surviving relic of the Moabite civilization, and its discovery was of great importance for the history of the alphabet (pl. 7).

6. The Black Obelisk of Shalmaneser II, or, as some scholars assume, Shalmaneser III, King of Assyria 860–824 B. C. The original of black basalt, which is now preserved in the British Museum at London, England, was discovered by Sir Austen Henry Layard at Nimrud, ancient Calah (Genesis x, 12), about 19 miles below Nineveh. It is about 7 feet high. The terraced top and the base are covered with cuneiform script containing a record of Shalmaneser's career nearly to the last year of his long reign. The upper part is occupied by five compartments of bas-reliefs running in horizontal bands around the four sides, and representing processions of tribute bearers from five nations. Narrow bands between the compartments contain short legends of the scenes rep-

resented. In 854 B. C. Shalmaneser defeated the confederacy of the Syrian kings, among whom were Benhadad of Damascus and Ahab of Israel, and in 842 B. C., after the siege of Damascus, received the tribute of Jehu, King of Israel (figured and described in the second row). This monument thus supplemented the Biblical narrative, since the participation of Ahab in the Syrian league and the payment of tribute to Shalmaneser by Jehu are not recorded in the Bible. This King is not to be confounded with Shalmaneser IV, 727–722 B. C., who is mentioned in II Kings xviii, 9, in connection with the conquest of Samaria (pl. 8).

7. In the center, on the floor, an ancient Roman mosaic, which formed part of the floor of the temple of Astarte, erected by the Romans at Carthage in the first century B. C., representing a lion attacking a wild ass. The original design, which was very large, is supposed to have been formed of a central mosaic, representing the goddess Astarte driving a chariot drawn by stags, and surmounted by others, depicting a great variety of animals. The fragment measures 6 feet 2 inches by 7 feet 10 inches wide (pl. 9).

8. Statue of Chefren. The original of dark green basalt, which is now in the Museum of Cairo, Egypt, was discovered by Mariette in a temple not far from the great sphinx.

Chefren (Egyptian, Chafra), third king of the fourth dynasty (beginning of the third millennium B. C.), is known as the builder of the second largest pyramid of Gizeh. According to the Egyptian records he reigned 56 years. The King is represented in the conventional attitude of seated figures; the headdress and the throne alone show that the figure represents a Pharaoh. The face is evidently a portrait (pl. 10).

9. Statue of Queen Amenerdas. The original of alabaster is in the Museum of Cairo, Egypt. The statue is of the twenty-fourth dynasty, about 720 B. C., and is the last good specimen of Egyptian art. The face is a portrait. The dress is that of an Egyptian woman. The headdress is the vulture bonnet worn by queens. In one hand is a lash, one of the insignia of royalty, and in the other a sort of purse.

Amenerdas was the sister of So or Sabaco, mentioned in II Kings xvii, 4. While her brother was still alive she was made queen of Egypt. After his death she married an obscure king, Piankhi II.

The inscription of the figure reads: "The beloved of Osiris, the lord of life, the great god; Mut-ha-nefru, the wife of the god (the king); Amenerdas, the daughter of the god (the king)."

The inscription on the pedestal reads: "The princess, Mut-ha-nefru, living forever; the royal daughter, Amenerdas, beloved of Osiris" (pl. 11).

On the walls, on the north side, opposite the Moabite stone: Assyrian four-winged figure holding a chaplet. The figure wears the horned headgear of the Assyro-Babylonian gods and is richly decorated with earrings, necklace, and bracelets. The right arm is lifted up, while the left is stretched out to the front, holding a chaplet or necklace.

Opposite the statue of Chefren: Assyrian bas-relief, representing a winged, eagle-headed genius, holding cone and basket.

On the south side, opposite the statue of Amenerdas: Lid of the sarcophagus of Queen Ankhneferabra. The original, of basalt, is in the British Museum, London, England. Ankhneferabra was high priestess of Amon and wife of Amasis II, King of Egypt about 550 B. C. The sarcophagus is considered as one of the finest monuments of the twenty-sixth dynasty. In the center is the figure of the queen, wearing the headdress of the goddess Isis-Hathor, surrounded by a funeral inscription (pl. 12).

Opposite the Shalmaneser obelisk: Inscription from Persepolis in the Cuneiform characters. The inscription is in the language of ancient Persia. It was engraved at the command of Artaxerxes III, Ochus, who reigned 358–344 B. C., or, according to some, from 359–338 B. C. The following is a translation of the inscription:

A great god is Ahuramazda, who created this earth, who created that heaven, who created mankind, who created prosperity, who made me, Artaxerxes, king, the sole king of multitudes, the sole ruler of multitudes.

Thus speaks Artaxerxes, the great king, the king of kings, the king of countries, the king of this earth:—I am the son of king Artaxerxes, Artaxerxes the son of king Darius, Darius the son of king Artaxerxes, Artaxerxes son of king Xerxes, Xerxes son of king Darius, Darius son of Vishtaspa, Vishtaspa son of one named Arshama, an *Achaemenian*.

Thus speaks the king Artaxerxes: This structure of stone I have built for myself.

Thus speaks the king Artaxerxes: May Ahuramazda and the god Mithra protect me, and this land, and what I have done.

Persepolis was the ancient capital of Persia. It is situated in the interior of Persia proper, forty miles northeast from Shiraz. Persepolis was the name given to this place by the Greeks. Its ancient Persian name is unknown (pl. 13).

10. Screen. On the east side, colored drawing of The Medeba Mosaic Map of Palestine. The original mosaic formed the floor of an old church in Medeba, a town in the former territory of Moab, situated east of Bethlehem, about five miles south by west from Hebron, and often mentioned in the Old Testament (Numbers xxi, 30; Joshua xiii, 9, 16; Isaiah xv, 2; I Chronicles xix, 7). The work dates from the sixth century A. D., and is not only the oldest map of Palestine known, but also the oldest detailed map of any country. Unfortunately, on the occasion of the rebuilding of the church in

1896, when the mosaic was discovered, it was much damaged, but the portion preserved, measuring about 35 feet, includes most of the places connected with Bible history, from Nablus (the Biblical Shechem) in the north to the delta of the Nile in the south. Like all the maps which are based on Greco-Roman tradition, the Medeba map is oriented toward sunrise—that is, when the map is read the east is at the top. It combines a view of ancient Canaan of the Israelites with a picture of Christian Palestine of the Byzantine period. Thus, alongside the Biblical place names are often given those in use at the time of the making of the map, and of the place names, about 140 in number, preserved on the fragment, some 60 have no reference to the Biblical narrative. The map, like the mosaic pictures of sacred history, is an illustration of the Bible narrative rather than a work of geography. The artist was more intent on the picturesque details than on geography. Much care is bestowed on the picture of towns. In the desert, east of the Jordan, a gazelle is pursued by a lion or panther. In the Jordan fishes disport themselves, while its banks are connected by two bridges. On the Dead Sea are shown two vessels, necessarily much out of scale. The inscriptions are in Greek. In addition to the geographical names there are in some cases added Biblical quotations or brief references to historical events (pl. 14).

On the west side: Decree of Canopus. Dr. R. Lepsius, early in 1866, while exploring the Isthmus of Suez and the Delta in the vicinity of the ship canal, uncovered a slab 7½ feet by 2½ feet, the upper part inscribed with hieroglyphics and the lower part with Greek characters. Subsequently a small slab containing a translation of the foregoing into demotic was recovered. The three parts of the stele contain a parallel inscription of 37 lines of heiroglyphics, 73 lines of demotic, and 74 lines of Greek.

The stele was set up at Canopus in the 9th year of Ptolemy III, Euergetes I (247–222 B. C.), to commemorate the great benefits which he had conferred upon Egypt, and particularly his restoration of the images of the gods which the Persians had carried off to Mesopotamia. In grateful acknowledgment of these acts the priests assembled from all parts of Egypt at Canopus, decreed that festivals be celebrated in his honor and in that of his wife, Berenice; that a new order of "Priests of the Beneficent Deities" be constituted, and that a copy of this inscription in hieroglyphics, Greek, and demotic, should be placed in every large temple in Egypt. The decree of Canopus is also called the Tanis Stone (Biblical *Zoan*, Arabic *San*), from the locality in which it was found. The original is in the Museum of Cairo, Egypt.

Below are two Egyptian reliefs, made from squeezes, representing, respectively, men sailing an oar-boat, and four men dragging a sledge.

11. Case containing among other objects a Greco-Egyptian portrait, representing a man's head of the Roman type. One of a collection of the oldest portrait paintings thus far discovered. It was found, along with many others, in the necropolis of Rubaiyat, in the province of Fayum in Egypt. These paintings were executed on thin panels of wood in encaustic (by means of melted white wax mixed with oil and burned in), or distemper (with colors mixed with adhesive substances, as the white and yolk of an egg, gum, size, etc.), or in a combination of the two. They were intended to be portraits of deceased persons, and were placed over the face of mummies, being glued to the linen bandages which enwrapped the body. The custom came up under the Greek domination of Egypt in the third century B. C., and is assumed to have continued till the end of the fourth century A. D. (Pl. 15).

Model of an Egyptian obelisk. Made of brass. The original, a shaft of granite 78 feet 4 inches in height, was erected during the reign of Rameses II, King of Egypt, about 1340–1273 B. C., in front of the temple of Luxor, on the site of ancient Thebes, in Upper Egypt. In 1831, it was transported to Paris, France, where it now stands on the Place de la Concorde. The inscriptions in Latin and French on the pedestal record the erection of the obelisk in Paris, in the presence of King Louis Philippe, in 1836. The original pedestal was left in Egypt.

Book of the Dead. Facsimile of an Egyptian Papyrus at the British Museum, London. The so-called Egyptian "Books of the Dead" are collections of religious texts, hymns, invocations, prayers to the gods, utterances of the gods, etc., intended for the use and protection of the dead in the world beyond the grave. The present collection is that of Ani, "Royal Scribe" and "Scribe of the Sacred Revenue of all the gods of Thebes," who is accompanied on his way through the divers parts of the realms of the dead by his wife Tutu. The hieroglyphic text is accompanied by colored vignettes which depict the various scenes through which the deceased has to pass in the nether world—his appearance before Osiris, the supreme judge of the dead; the weighing of the heart of the departed against the goddess of Truth, etc. (pl. 16).

The Gliddon Mummy Case. This fragment is one third of a mummy case obtained by Mr. George Gliddon at Sakkarah, in Egypt, and presented to the National Institute in Washington, in 1842. At the dissolution of this Society the specimen became the property of the Smithsonian Institution. The remaining two

thirds were divided between the Naval Lyceum of Brooklyn and Mrs. Ward of New York. The mummy case is formed of layers of linen, over which is a thin coating of *chunam* to receive the painting. This *chunam* is a kind of stucco used in Egypt and Hindustan, even to the present day. The figure on the left represents Isis, goddess of dawn, holding in her right hand the *ankh* or *crux ansata*, emblem of life, and in her left hand the *uas*, symbol of power and purity. The figure on the left represents Nepthys, goddess of twilight, with the symbols reversed. The inscription is part of a formula frequent from the 6th dynasty, in the Pyramid of Seti, of Pepi 5th, etc.

Greco-Egyptian papyri, containing accounts of payments of money and in kind; collector's return, fragments of letters, etc., dating from the end of the first century B. C. to the end of the second century A. D.

A selection of Egyptian sepulchral figures. The Egyptians buried with their dead small figures, called *Ushabti* ("answerers,") to serve as substitutes for the deceased and to perform for him whatever agricultural work he might be called upon to do in the realm of the departed, which was conceived as an arable country, where the work of tilling went on as on earth. These ushabti were placed, sometimes in large numbers, either in a special box or upon the floor of the tomb. They were made of wood, clay, terra cotta, stone, glazed faience, and other materials, in form of a mummy with the hands folded upon the breast, and were sometimes laid in the model of a coffin or sarcophagus. In later times they are represented holding a mattock, or hoe, and a reed basket. They are usually inscribed with the name and titles of the deceased, to which is often added a chapter from the Ritual of the Dead.

Scarabs, plaques representing deities, models and molds, etc.

SCARABS.

Scarab or scarabaeus is the name given to the myriads of models of a beetle which are found with mummies, in tombs and ruins of Egypt and other countries which had relations with Egypt. The beetle which was copied in this manner is identified by entomologists with the *Ateuchus sacer*, an insect generally black, occasionally also of blackish green hue, about an inch long by three quarters of an inch broad, found in the southern regions of the Mediterranean. It lays its eggs in a small pellet of dung, rolling it till it assumes the shape of a ball, and then burying it in the sand where the eggs are hatched out by the sun's rays. On account of this habit of the insect the ancient Egyptians saw in it an emblem of the sun god who rolls the sun ball across the sky. It was especially the symbol

of the god Khepera, whose name the scarab bears in Egyptian, the "father of the gods," who created himself and all that exists from emanations of his own body. The scarab, which like the god, was supposed to have produced itself in the mud pellet, became the symbol of resurrection and of perpetual life.

Scarabs were made of every kind of stone known to the Egyptians, also of shell, glass, ivory, faience, or glazed pottery, and even of wood; metal scarabs are rare. In size the scarabs range from a fifth of an inch in length to 4 or even 5 inches, but the commonest size is about three-quarters of an inch by one-half of an inch broad and a quarter of an inch high, and are nearly always pierced longitudinally to receive a thread or thin wire.

By far the greater number of scarabs are carved to represent the beetle standing upon an elliptical base the underside of which is engraved in intaglio with a device or inscription. The engraving depicts figures of gods, men, animals, and flowers, or bears hieroglyphic inscriptions, or ornamental devices, as coils, spirals, rope and scroll patterns. A large number of the inscriptions consist of the names or titles of kings. They were used as seals or signets; were placed with the mummies as expressive of the belief in the revivification of the body and in the renewed life after death, and may also have had an amuletic or talismanic import. Some of them are inscribed with mottoes of good wishes. They are sometimes found strung together and may have been worn as bracelets or necklaces.

The scarab was essentially an Egyptian gem, as the cylinder seal was essentially Assyrian. But the Phenicians borrowed the use of the scarab from Egypt and made it an article of trade. This accounts for the finding of scarabs in various lands bordering on the shores of the Mediterranean.

The Etruscan scarabs, which are frequently found in Tuscany, the ancient Etruria, are generally carved of sard, banded agate, or rock crystal, and are usually engraved with figures or groups derived from the heroic legends of Greece.

12. Case containing the funerary tablet of Nebsumenu, of limestone.

Mummied Ibises. The ibis was the sacred bird of Thoth, the scribe of the gods and the god of learning. Dead ibises were embalmed and buried in earthenware jars. At Memphis there are numerous burial places of the sacred ibises.

An ibis eggshell.

Stone implements. Made of dolorite, granite, limestone, syenite, basalt, and gabbro, in forms of cones, spheroidals, discoidals, etc.

Used as hammers, polishers or rubbers, palettes, etc. Predynastic period.

Rhomboid palette of slate with a depression in the center for holding the ink or paint. Predynastic period.

Predynastic and later pottery.

On the walls on the north side—Assyrian bas-relief representing winged figures kneeling before the sacred tree or tree of life, with an inscription of Ashurnazirpal, King of Assyria 884–860 B. C. On the south side are three Assyrian bas-reliefs, representing, respectively: Head of a priest or divinity;

Wounded Lioness. The original in limestone, which is now in the British Museum, London, was found in 1853 in the ruins of the palace of King Ashurbanipal (668–620 B. C.) at Kuyunjik, the ancient Nineveh. The wounded lioness is regarded as one of the masterpieces of Assyrian sculpture, combining, as it does, simplicity and ease in treatment; and

King with two armor-bearers and a eunuch.

13. Wall case on the west side of the Pavilion, containing Egyptian coffins and casts of the Canopic jars.

In the process of mummification, the viscera were taken out of the body, and after being cleansed and wrapped in linen with spices, salt, etc., were put into four jars, which were placed under the protection of the four gods of the dead, sons of Horus (or Osiris), whose part was to guard them, and therefore also the deceased, from hunger and thirst. Each of the vases was provided with a cover which was made in the shape of a deity, to whom it was dedicated, viz, (1) Emset, human-headed; (2) Hapi, dog-headed; (3) Tuamutef, hawk-headed; and (4) Khebesennuf, jackal-headed. The name, "canopic," was given to these vases by early Egyptologists under the misconception that they represented a certain god whose worship centered in the city of Canopus. The inscription on the vases declares that they belong to "the favorite minstrel of Amon-Re in the fourth class Nes-netret, the justified daughter of the prophet of Amon in Opet-Hot, her mother is Ankhes-en-Aset."

On the wall over the case, Assyrian relief representing Sennacherib receiving the submission of Lachish. The original, of alabaster, which was found in the ruins of Kuyunjik on the site of ancient Nineveh, is now in the British Museum, London. In II Kings xviii, 13 and 14, it is said that Sennacherib, King of Assyria (705–681 B. C.), received tribute from Hezekiah, King of Judah, in the city of Lachish, in southern Palestine. This cast represents the Assyrian King receiving the submission of Lachish. He is seated on his throne, with his attendants holding fly brushes over his head. Behind is a tent, over which is the legend: "Tent of Sennacherib, King

of Assyria." Underneath is seen his chariot with the state umbrella and attendants. Before the King stands an official followed by soldiers, who introduces a file of captives. Overhead is an inscription reading: "Sennacherib, King of the World, King of Assyria, seating himself upon his throne, inspected the booty of Lachish."

Leaving the Pavilion and entering the passage adjoining it, there is on the north side a series of Kensington cases with reliefs between them. From west to east:

14. Collection of Mediterranean pottery (see above, p. 442).

15. Antique iridescent glassware (see above, p. 443). (Pl. 17.)

Persian bas-relief, representing a warrior from Persepolis. (Pl. 18.)

16. Haremhab (or Heruemheb). He was the second successor of Tutankhamen and the last king of the eighteenth dynasty. Cast of the original of granite in the Museum of Cairo, Egypt.

Assyrian bas-relief, representing two warriors with bows and arrows.

17. Antique iridescent glassware.

18. Egyptian antiquities. Collection of necklaces, scarabs, *ushabti* figurines, pendants, potteries, mummy fragments, terra-cotta lamps, coins of Alexander the Great and of the first Ptolemies. The collection was made by the late John Chandler Bancroft Davis when he was United States Minister to Germany, 1873–1877, and presented by the executors of his estate, James Gore King, of New York; Gracie King Richards, of Washington, D. C.; and Bancroft Davis, of Boston, Massachusetts.

Opposite, or south side of the passage, from east to west:

19. Torso of Panammu II. Cast from the dolorite original, found at Senjirli, Asia Minor, and now in the Museum of Berlin. Originally about 9 feet high. On the lower portion is an inscription in relief of 23 lines in the old Aramaean language. Height, 6 feet 2 inches. The inscription says that the statue was erected by Bar-Rekub "before Hadad, El, Rakubel, Shemesh (sun god), and all the other gods of Ja'di" to his father Panammu, son of Bar-Sur, King of Sam'al, a region situated between the Orontes and Taurus in the country of the Hittites; also that, in an uprising against Sam'al, Bar-Sur, grandfather of Bar-Rekub, fell a victim, together with seventy of his house (compare Judges ix, 1–5), Panammu alone surviving. A famine ensued (II Kings vii, 1). With the assistance of Tiglathpileser III, tranquillity was restored, Panammu placed on the throne of his father, and food and drink became plentiful. Panammu followed him on his expeditions, in one of which, before Damascus, he died. His body was carried to his native place, and his son, Bar-Rekub, who set up this stele, was appointed by the

Assyrian King to succeed him. As Tiglathpileser III (Pul, of II Kings xv, 19) occupied the Assyrian throne from 745 to 727 B. C., and was a contemporary of Panammu II and of Bar-Rekub, the maker of the inscription, this monument belongs to the eighth century B. C., and is accordingly one of the earliest in the Aramaean script.

20. Hapi, the Egyptian God of the Nile. Original, of quartzite sandstone, in the British Museum, London. Hapi is in Egyptian the name of the god or personification of the Nile and of the river itself, upon which Egypt was dependent for the issue of its crops. On his outstretched hands the god bears an altar from which hang down bunches of grain, vegetables, flowers, and waterfowl. The statue was dedicated to Amon Re, the supreme god of Egypt, by Shoshenk II, a king of the twenty-second dynasty, about 900 B. C. His grandfather, Shoshenk I, is mentioned in the Bible by the name of Shishak (I Kings xiv, 27; II Chronicles xii, 5, 7, 9). (Pl. 19, fig. 1.)

21. Horus and Altar. Cast of original in the British Museum, London. Horus was worshipped with the other solar divinities of Egypt as the morning sun. As the son of Osiris, the deity of the nether world, he presented the deceased to Osiris. He is generally represented as hawk-headed. His symbol is the winged sun-disk. (Pl. 19, fig. 2.)

22. Assyrian Human-headed Winged Lion. Cast from original, of yellow limestone, preserved in the British Museum, London, England. The original specimen was found by Sir Austen H. Layard in 1846, at Kuyunjik, on the site of ancient Nineveh, and is supposed to belong to the period of Asurnazirpal, who reigned 884–860 B. C. Dimensions, 11 feet by 9 feet.

Figures of composite animals, in stone or metal, sometimes of colossal size, were placed by the Assyrians at the entrances to the temples of the gods and the palaces of the kings. They were considered as emblems of divine power, or genii (Assyrian *shedu*), and were believed to "exclude all evil." Lions were also placed "beside the stays" and on either side of the steps of the gilded ivory throne of Solomon (I Kings x, 19–20). Some Assyriologists connect the Assyrian winged and composite beings with those seen by the Prophet Ezekiel, in his vision of the "chariot" (Ezekiel i), and the cherubim guarding the entrance to Eden (Genesis iii, 24), and those overshadowing the Ark of the Covenant (Exodus xxv, 18, etc.). Compare also the "four living creatures" in Revelation v, 14; vi, 1. Parallels are also found in the sphinx, the chimera, and the griffin. (Pl. 20.)

23. The Babylonian Code of Hammurabi. Cast of an original of black diorite, now in the Museum of the Louvre at Paris, which

was found, in 1901–2, by the French expedition on the site of the ancient city of Susa, the Biblical Shushan, once the capital of Elam and one of the residences of the Persian Kings. On the top of the stele a bas-relief represents the king standing before the sun-god (Shamash), from whom he receives the laws. The code comprises, in the present condition of the monument, 245 distinct laws, and it is assumed that about 35 more have been erased. They are concerned with all the relations of commercial, agricultural, social, and domestic life.

Hammurabi, the originator or compiler of these laws, is identified with Amraphel, mentioned in Genesis xiv as a contemporary of Abraham. This code of laws is thus the oldest in existence, antedating by about one thousand years the Pentateuch, with which it shows many similarities in form and substance (pl. 21).

24. In the alcove, the Rosetta Stone. Cast in plaster from the original, of black basalt, now in the British Museum, London, England. The Rosetta Stone was discovered in 1799 by Boussard, a French officer, near Fort St. Julien, near the Rosetta, mouth of the Nile, in Egypt. The inscription is in the Egyptian and Greek languages. The Egyptian portion is written in hieroglyphic and demotic characters. This bilingular inscription supplied the key to the deciphering of the ancient monuments of Egypt. In its present condition the stone measures 3 feet 3 inches by 2 feet 6 inches, and contains 14 lines of hieroglyphic, 32 of demotic, and 54 of Greek script. The upper part, containing probably 14 or 15 more lines of hieroglyphics and some sculptured ornament on top, has been broken off, and the right-hand bottom corner has also suffered injury. The inscription contains a decree by the Egyptian priests assembled at Memphis, in 196 B. C., to celebrate the first commemoration of the coronation, in the eighth year of his reign, of Ptolemy V. Epiphanes (205–182 B. C.). It enumerates the benefits which the King has conferred upon Egypt, chief among them, that he has reduced taxes; dedicated certain revenues to the temples; released prisoners; abolished the pressgang; and averted great damage from the land by restraining the waters of an unusually high Nile. In return the priesthood directed that a statute of the king, inscribed "Ptolemy the Saviour of Egypt," be set up in the temples; that a shrine containing an image of him be placed in every temple and be carried with those of other deified kings in processions; that the first five days of the month of Thoth should be set apart for special services in his honor; and that a copy of this decree, engraved upon a tablet of hard stone, in hieroglyphics, demotic, and Greek characters, should be erected in each of the temples of the first, second, and third orders (pl. 22).

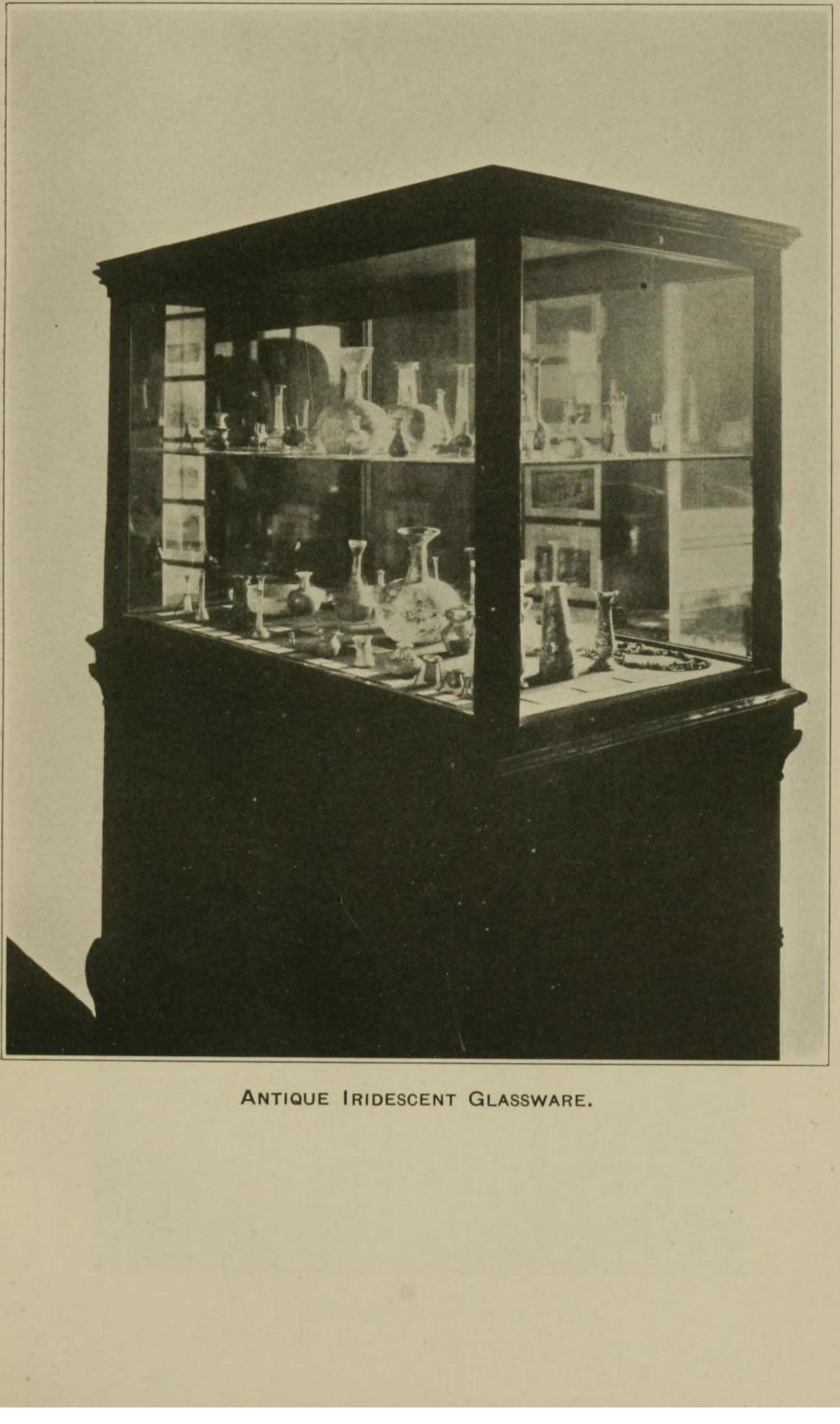
25. Lid of the Sarcophagus of Sebaksi. Original in the British Museum, London. In Egyptian inscriptions occurs the name Sebaksi as that of an Egyptian priest who lived about 700 B. C. Height, 7 feet 4 inches (pl. 23).

26. Human-headed Winged Bull. The original, of yellow limestone, now in the British Museum, was found by Sir Austen H. Layard in 1846, at Kuyunjik, on the site of ancient Nineveh, and is supposed to belong to the period of Asurnazirpal, who reigned 884–860 B. C. Dimensions, 11 by 9 feet. The winged bulls, like the winged lions, guarded the entrances to the temples and the palaces of the Assyrian monarchs, in order to protect the coming and going of the King. They were called "the bulls of heaven," and were supposed to have been made by Anu, the god of heaven.

27. Stele of Sargon II. Cast from the limestone original in the Museum, Berlin, Germany. It was discovered at Larnaka, in Cyprus, the site of the ancient Kition, by Prof. L. Ross, in 1845. Height, 7 feet; width, 27 inches; thickness, 14 inches. The Stele is a monument of Sargon II, King of Assyria, 722–705 B. C., and of Babylonia, 709–705 B. C. After Sargon had captured Babylonia, Cyprus, called in the inscription *Iatnan*, sent the Assyrian king presents, and in return he gave this image of himself. The inscription is in the archaic Assyrian script, which Sargon adopted after he became king of Babylonia. Sargon was the father of Sennacherib, grandfather of Esarhaddon, and great-grandfather of Ashurbanipal, the Sardanapalus of Greek writers. He captured Samaria, completing the destruction of the kingdom of Israel, which his predecessor, Shalmaneser, had begun. According to the inscriptions, Sargon led 27,280 Israelites into captivity, and transplanted in their country colonists from Babylon, Kutha, Awwa, Hamath, and Sepharvaim (II Kings, xvii, 24). He is mentioned once in the Bible (Isaiah xx, 1), in connection with the campaign against Philistia: "In the year that *Tartan* (commander in chief) came into Ashdod, when Sargon, King of Assyria, sent him, and fought against Ashdod and captured it." That event took place in 711 B. C.

28. Statue of the God Hadad, with inscription in the old Aramaean dialect. Cast from the original of dolorite, found at Gertchin, near Senjirti, northern Syria, and at present in the Museum of Berlin, Germany. Height, 10 feet 5 inches.

This statue was erected by Panammu, son of Karul, king of Ja'di, in northern Syria, in the 8th century B. C., to the gods El, Reshef, Rakubel, Shemesh, and above all to Hadad. Hadad was the name of the Supreme Syrian deity, the Baal, or Sun-god, whose worship extended from Carchemish, the ancient Hittite capital in Syria, to Edom and Palestine. Many Edomite and Syrian kings bore the



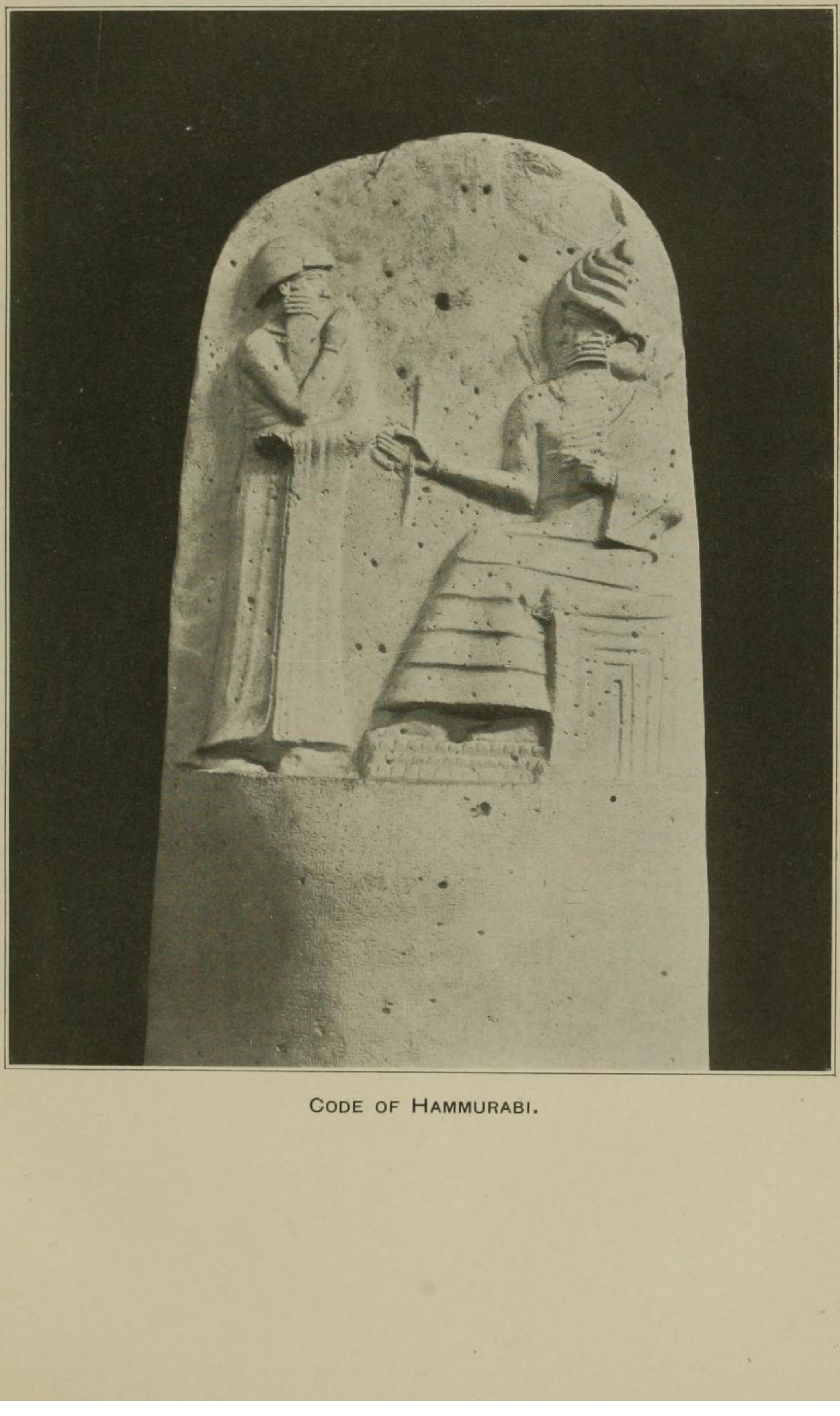
ANTIQUE IRIDESCENT GLASSWARE.

WARRIOR FROM PERSEPOLIS.

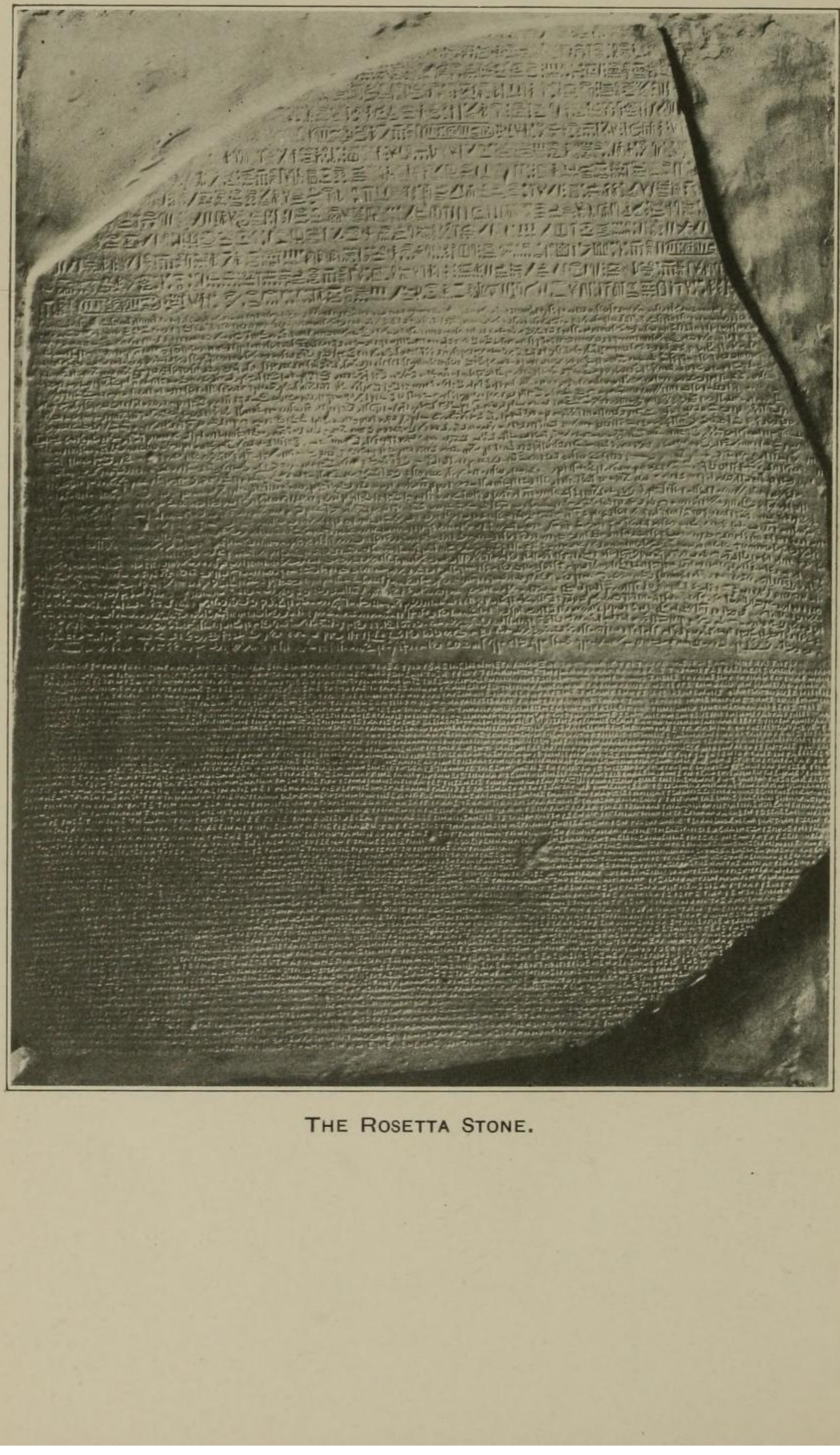
1 2

1. HAPI, GOD OF THE NILE. 2. HORUS WITH ALTAR.

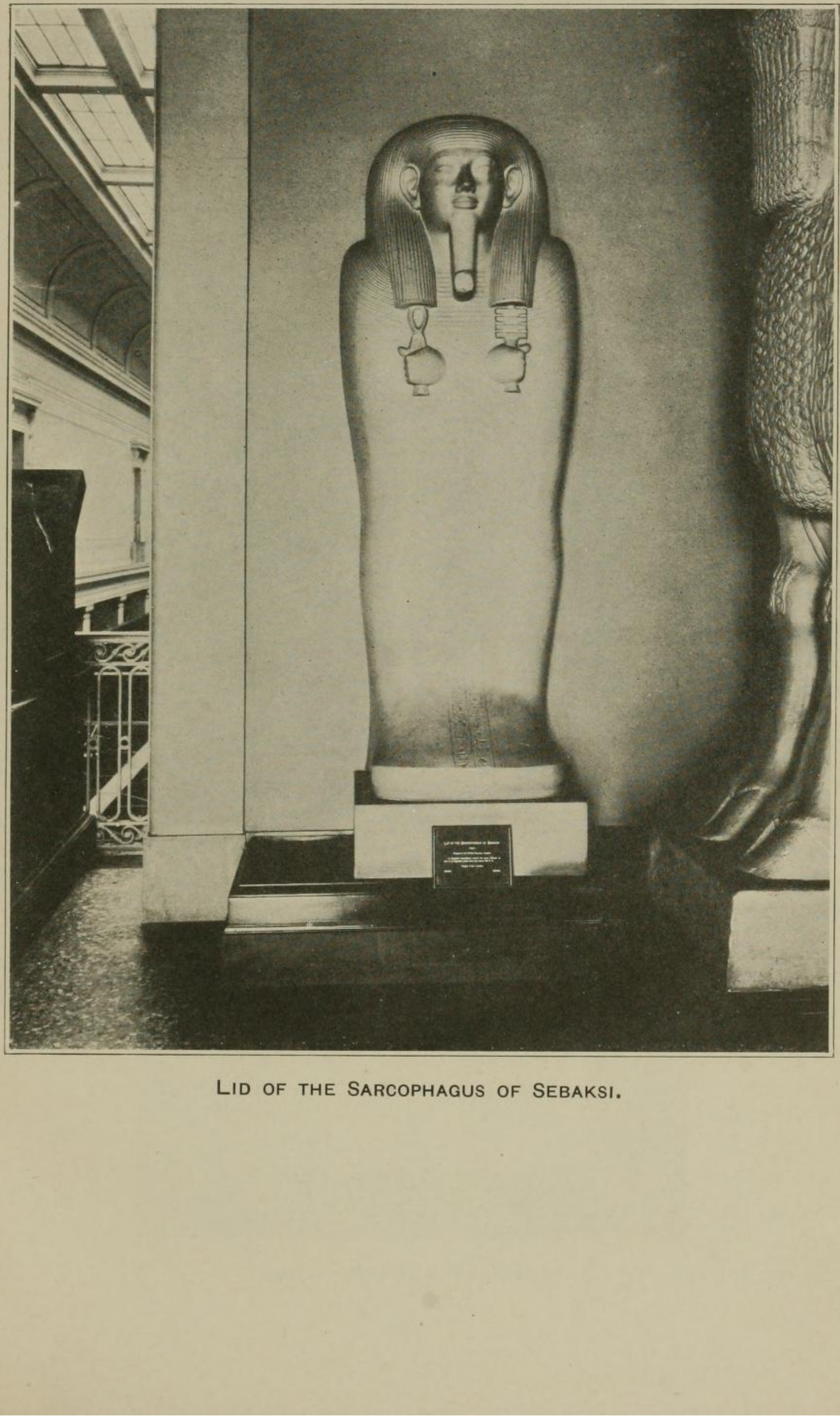
ASSYRIAN HUMAN-HEADED WINGED LION.



CODE OF HAMMURABI.



THE ROSETTA STONE.



LID OF THE SARCOPHAGUS OF SEBAKSI.

STATUE OF THE GOD HADAD.

name of the deity as a title. (Compare Genesis xxxvi, 35; II Samuel viii, 3.) In Zachariah xii, 11, is mentioned a place in the valley of Megiddo named after the two Syrian divinities "Hadad-Rimmon."

The inscription contains 34 lines. The characters are in relief and in form most nearly resemble those of the Moabite stone. The first part (lines 1 to 15) contains the dedication of Panammu to the gods to whom the monument was erected, who conferred on him the government of Ja'di and granted plenty to the land. The second part (lines 15 to 24) relates the injunction of Karul to his son Panammu that he erect a statue to Hadad and honor him with sacrifices. The third part (lines 24 to 34) containes the usual curses against those who would destroy, deface, or carry off the monument (pl. 24).

Above on the wall, west side, Assyrian relief, representing Ashurbanipal, King of Assyria, 668–626 B. C., in chariot hunting lions; on the east side, three Assyrian reliefs, representing, respectively, winged figure holding cone and basket, priest holding a poppy stem in his hand, and a winged, eagle-headed divinity.

In the large western hall there is on the left, or east side, a series of wall cases, while the floor is occupied by two parallel rows of cases. Ranged on bases at the south end of the hall are casts of large sculptures.

Starting from the north side, the first three wall cases (29–31) are occupied by Egyptian antiquities. Above on the wall of the cases are casts of several limestone stelae, representing in succession Rameses II (about 1300–1230 B. C.); the reputed Pharaoh of the Oppression, making an offering to the goddess Hathor; men at various occupations; upper part of the figure of a queen; walking sphinx; two attendants in front of a table; female bust; Amenophis I, King of Egypt, about 1562–1541 B. C.; the priest Hor-em-hat; and perhaps Amenophis IV, about 1375–1358 B. C., who introduced the monotheistic worship of the solar disk and called himself Ikhnaton.

On the upper shelves are *ushabti* figurines and plaster casts of busts.

Underneath, on the wall, are specimens of mummy cloth and of old Egyptian textile art. The latter were found in the tombs of Akhmim, the Greek Panopolis, in upper Egypt, and date from the fourth to the seventh centuries A. D.

On the shelves are parts of coffin lids, representing human heads and faces, of wood, terra cotta and cartonage; funerary cones, fragments of mummied animals, necklaces, rings, scarabs, vases which were found in tombs; an old sun-dried brick and a modern Egyptian brick, which consists of ordinary soil mixed with chopped straw and sun baked. This method of making bricks is alluded to in

Exodus v, 18, where the oppressed Israelites are told, "there shall no straw be given you, yet shall ye deliver the tale of bricks." In the ruins of Pithom, one of the cities where the Israelites were employed, three kinds of brick were discovered, some with stubble, some with straw, and some without. Among the paintings of Thebes, one on a tomb represents brick-making captives with "taskmasters," who, armed with sticks, are receiving the "tale of bricks" and urging on the work. Judging from the monuments, the process of making sun-dried bricks was much the same as in modern times. The clay or mud was mixed with the necessary amount of straw or stubble by treading it down in a shallow pit. The prepared clay was carried in hods upon the shoulders and shaped into bricks of various sizes. There are also some geological and agricultural specimens on the shelf.

On the bottom of the case are a series of busts and statues, viz:

Bust of Amenophis II, King of Egypt about 1450–1425 B. C.

Human-headed Sphinx. With head of a man and body of a lion. Made of limestone and only partly finished. The headdress is that of a royal person, surmounted by a group of symbols consisting of ostrich plumes in front; *uraei* or asps on the side; and the solar disk and horns of Hathor in the rear. On the shoulders are carved in flat relief the sacred beetle or *scarabaeus* and the image of Apis supporting the solar disk. On the breast is the scorpion, the special emblem of the goddess Selk or Serk; and the jackal, emblem of Anubis, the conductor of the dead. Around the legs are wound serpents, and a crocodile appears between the forefeet. Under the belly and supporting the lion is the head of Phthah. Received from the National Institute. Height, 24 inches (pls. 25 and 26).

Royal Head. Of the eighteenth dynasty (about 1550–1350 B. C.). Cast of an original of granite in the British Museum, London, England.

Rameses II, King of Egypt about 1300–1230 B. C. Supposed to have been the Pharaoh of the Oppression. Cast of an original of black granite in the Museum of Turin, Italy.

Statuette of the god Osiris. Egyptian god of the dead. Cast of an original of dark green basalt in the Museum of Cairo, Egypt.

Queen Hatshepset (Hatasu). Daughter of Thothmes I and co-regent with her brothers, Thothmes II and Thothmes III of the 18th dynasty (1516–1481 B. C.). Cast of an original of granite in the Museum of Cairo, Egypt.

Statuette of the goddess Isis, wife of Osiris. Cast of an original of dark-green basalt in the Museum of Cairo, Egypt.

Thothmes III, King of Egypt about 1500 B. C. Cast of an original of gray granite in the Museum of Turin, Italy.

Khnumtamon Ramaka, wife of Thothmes III, King of Egypt about 1500 B. C. Cast of an original of limestone in the Museum of Cairo, Egypt.

Statuette of black marble, perhaps representing Antinous, the friend of Hadrian, Roman emperor, 117–138 A. D.

Tirhakah, King of Egypt and Ethiopa, 698–672 B. C. Original of granite in the Museum of Cairo, Egypt. He is referred to in II Kings xix, 9, and Isaiah xxxvii, 9, as attacking Sennacherib, King of Assyria. The inscriptions of the Assyrian king Ashurbanipal (Sardanapalus, Hebrew *Asenappar*, Ezra iv, 10), 668–626 B. C., mention him, under the name *Tarqu*, as king of Egypt and Ethiopia. Manetho, who calls him *Tarkos* (*Tarakos*), says he was the last king of the 25th dynasty. Strabo (xvi, l, 6) calls him *Tearkon*, and describes him as one of the greatest conquerors of the ancient world.

Head of Amenophis (Amenhotep) IV, King of Egypt about 1375 B. C. Cast. Amenophis IV is known as the "reformer" or "heretic King," because he introduced a sort of monotheism, consisting in the sole worship of the sun god in the form of the solar disk. The original, of limestone, is in the Museum of Berlin, Germany.

Head of the Queen of Amenophis IV. Cast. Original, of limestone, is in the Museum of Berlin, Germany.

Statuette of the Queen of Amenophis IV. Cast. Original, of limestone, in the Museum of Berlin, Germany.

32. In the alcove, plaster model of the Stonehenge. The Stonehenge is a megalithic monument standing on Salisbury Plain, Wiltshire, England. Few of the huge stones now remain in their original position. From the portions of the structure still extant it is assumed to have been composed about as follows: In the center was a large slab—the altar stone—15 feet long. Around this, 19 monolithic pillars, over 20 feet in average height, were set in a horseshoe or ellipse. The open part of the horseshoe faces the sunrise at the summer solstice. Surrounding this, and concentric with it, was another horseshoe composed of 5 triliths, formed each of 10 monolithic pillars with their capstones. Outside this ellipse was a circle of 30 or 40 smaller pillars. This was inclosed within another circle of about 100 feet in diameter, formed by 30 great monolithic pillars capped with large lintel stones. Outside of this circle, again, was a circular earthwork, or rampart, inclosing an area about 300 feet in diameter.

Excavations undertaken on the site of the monument brought to light, together with some coins and pottery fragments, nearly 100 stone implements of various kinds which had been employed in dressing the rude blocks into regular shape.

Some consider the structure a temple dedicated to the worship of the sun, and assign its erection to the end of the Neolithic period on the ground that no bronze relics were found. Analogous stone circles, of which about 200 are known in the British Isles, were chiefly used as tombs, and this would suggest that sepulture was at least one of the purposes for which Stonehenge was erected. This would also account for its situation on Salisbury Plain, where there existed in the Bronze Age an extensive necropolis, as evidenced by the numerous barrows in the vicinity of the Stonehenge. This would by no means exclude its use as a temple. It may have served for the performance of funerary rites analogous to the mortuary temples of Egypt.

33. The fourth wall case contains Babylonian and Assyrian antiquities:

On the wall of the case are casts of Assyrian bas-reliefs, representing warriors with a bull; a king slaying a lion, and a flute player in front of a palm tree.

On the upper shelf are bisque statuettes of Sennacherib, King of Assyria 705–681 B. C., and of Ashurbanipal, King of Assyria 680–668 B. C., and his queen; a sacrificial dish which is adorned on the four corners with the heads of bulls, an animal which was much venerated by the Assyro-Babylonians, and engraved on the sides with various figures and symbols; head of a priest, and an amphora of alabaster.

On the lower shelf are incantation bowls inscribed in the Aramaic language found in Babylonia; iridescent glass bottles, glazed tiles; besides:

The Chaldean Deluge Tablet, containing the cuneiform text of the Babylonian account of the Deluge, as restored by Professor Paul Haupt. Engraved in clay under the direction of Professor Haupt, by Dr. R. Zehnpfund, of Rosslau, Germany. The Babylonian story of the Deluge is contained in the eleventh tablet of the so-called Izdubar or Gilgamesh legends, commonly known under the name of the Babylonian Nimrod Epic. The Babylonian narrative of the Deluge closely accords, both in matter and in language, with the Biblical account as contained in Genesis vi–viii. Xisuthrus or Hasisadra or Zit Napishtim, the hero of the Babylonian account, corresponding to the Biblical Noah, is informed by a god of the coming flood and ordered to build a ship to preserve himself, his family and friends, and various animals. After sending out divers birds (a dove, a swallow, and raven) he lands on the mountain Nizir in Armenia and offers a sacrifice to the gods, after which he is taken to live with the gods.

The originals were found during the British excavations in the valley of the Euphrates and Tigris, and are now preserved in the British Museum in London (pl. 27).

Babylonian Votive Tablet of the Sun-god. Cast from the original of alabaster, now in the British Museum, London. Found in 1881 in the ruins of Abu Habba, the site of ancient Sippara, which is identified with the Biblical Sepharvaim, one of the centers of the worship of the sun god, Shamash. The sun god is seated on a throne in his shrine, holding in his right hand a staff and a circle, the emblems of his authority. Above are the symbols of the sun god, the moon god, and of Ishtar (Aashtarte). Before the shrine is an altar, with the sun disk on it held with ropes by two attendants. Three persons approach the god in adoration. Over them is an inscription reading: "Image of the sun-god, the great lord, who dwells in the temple Ebabbara (white house) in Sippar." The inscription below and on the other side of the tablet recounts the history of the temple (pl. 28).

A selection of seals. The cast of a bronze bell, now in the Berlin Museum, merits notice because of the design running around the cup, representing demons portrayed as wild animals of hybrid character in an upright posture and in a threatening attitude.

On the bottom of the case: Babylonian boundary stone. Boundary stones record grants of land to individuals by royal decree, or transfer of property made by legal procedure. They are decorated with the god or gods (in the present instance, the sun god Shamash) who are invoked as witnesses to the transaction, and were set up at the boundary of the property in question as memorials of the gift or transfer.

Torsos of the figures representing Gudea, an ancient priest-king (*patesi*) as architect. The originals of black diorite, now in the Museum of the Louvre in Paris, France, were found in an ancient temple at Telloh, Babylonia, during the extensive excavations undertaken in 1877–1881 by M. Ernest de Sarzec, the French vice consul at Bassora.

Gudea ("Speaker" or "Prophet," in Semitic, Nebo) reigned about 2500 B. C. The figure is seated on a stool in a religious attitude. The hands are clasped in the oriental posture of meditation and devotion. On the knees is held a tablet with plan of a fortress having six gates flanked by towers and walls surrounded by battlements. In front of this tablet there is a graduated rule $10\frac{5}{8}$ inches long (=27 cm., i. e., a Babylonian half cubit), and at the side is the stylus with which the architect engraved his design. The figure is clad in a sleeveless cloak crossed over the breast and thrown back over the shoulder. The inscription covering the figure is known as

"Inscription F of Gudea." The writing is in the early hieroglyphic forms of the cuneiform script, and it runs not from left to right in horizontal lines as in the later Assyro-Babylonian inscriptions, but from above downward, beginning at the right and thence proceeding toward the left in parallel vertical columns, the face of the characters being turned toward the right, not the left, as in Chinese. The same arrangement is met with in the Egyptian hieroglyphics.

Two Babylonian inscribed bricks.

Assyrian Bas-reliefs. Plaster cast reductions, representing: First row, human-headed winged lion and bull, and between them Gilgamesh, who is identified with the Biblical Nimrod, holding a lion; second row, religious procession; third row, King Sargon (722–705 B. C.) and suit; fourth row, heads of a king and of a eunuch, with an offering scene in the center.

Babylonian Altar with Bas-reliefs. Cast of an original circular altar of diorite, now in the Museum of the Louvre, Paris, which was discovered by M. de Sarzec in the ruins of Talloh, on the site of the ancient city of Sirpula, South Babylonia.

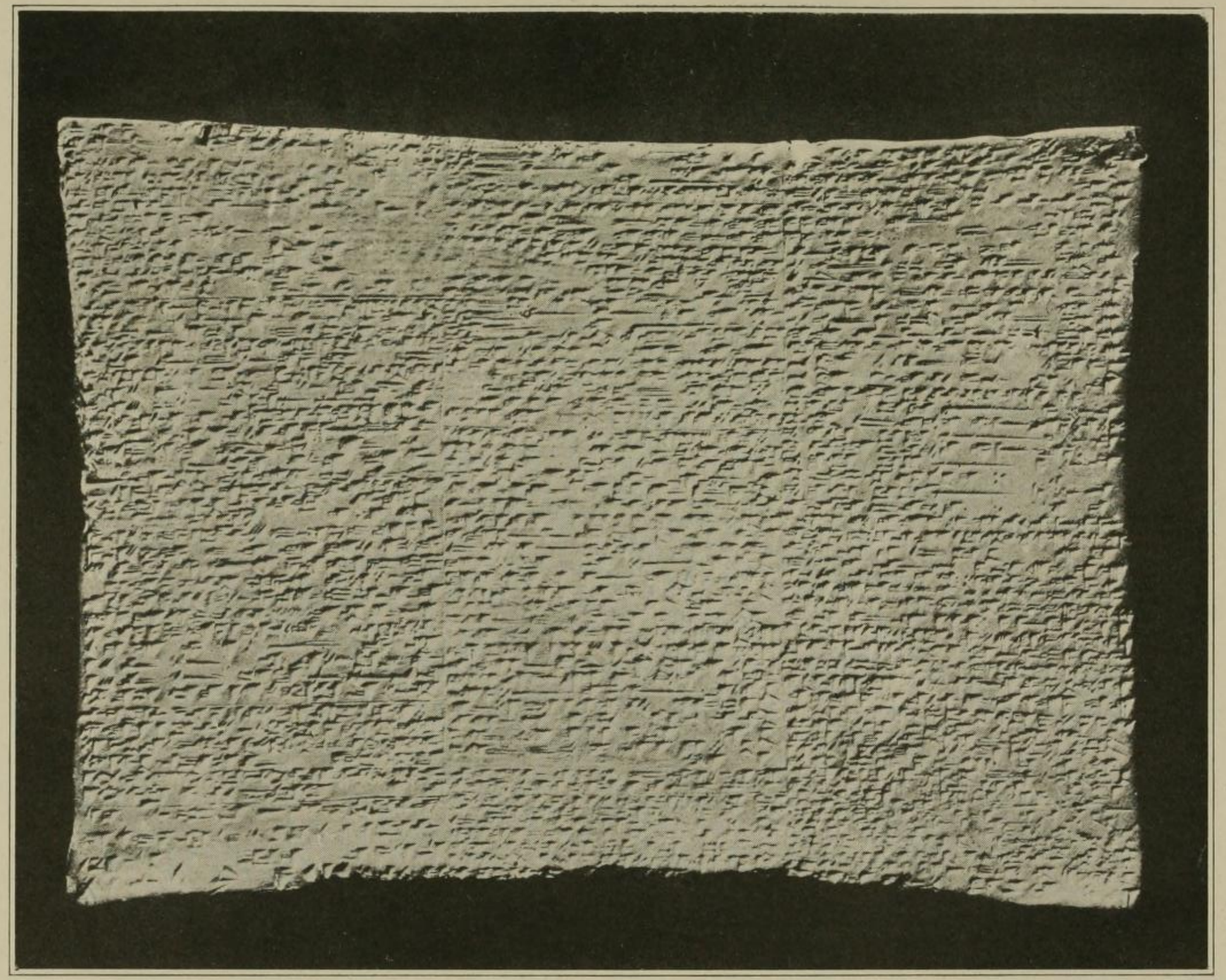
34. The next wall case is given over to Biblical antiquities. The fashion of dress and ornament, as well as the form of household utensils, is, it may be assumed, in the "unchanging East" essentially the same at the day as in Bible time, and the collection shown of objects of modern life and industry in the Orient explain or illustrate many allusions in the Scriptures. On the wall, Syrian coat, called in Syriac *abba*, consisting of red cloth embroidered in white, and worn as an outer garment.

Sling (Hebrew, *Kel'a*) from Damascus, Syria. The sling as a weapon of war is first mentioned in Judges xx, 16. David killed Goliath with a stone thrown from a sling (I Samuel xvii, 40). The Israelitish army was provided with companies of slingers (II Kings iii, 25). The sling was also employed in the wars of the Romans against the Jews (Josephus, Wars of the Jews iii, 7, 18; iv, 1, 3). According to the monuments the sling was both an Egyptian and an Assyrian weapon. It consisted of a strip of leather or woven material, wide in the middle to receive the missile, and narrowing at both ends into a rope. Not only were smooth stones used for hurling, but also balls made of burnt clay, of lead, and various other hard substances. The sling is still used by shepherds to drive away wild animals from their herds, as in the time of David (I Samuel xvii, 40). (Pl. 29.)

Bird trap (Hebrew, *pah*) from Baghdad, Mesopotamia. The usual method of catching birds was with the trap, which consisted of two parts: a net strained over a frame, and a stick or spring (Hebrew, *mokesh*) to support it, but so placed that it should give

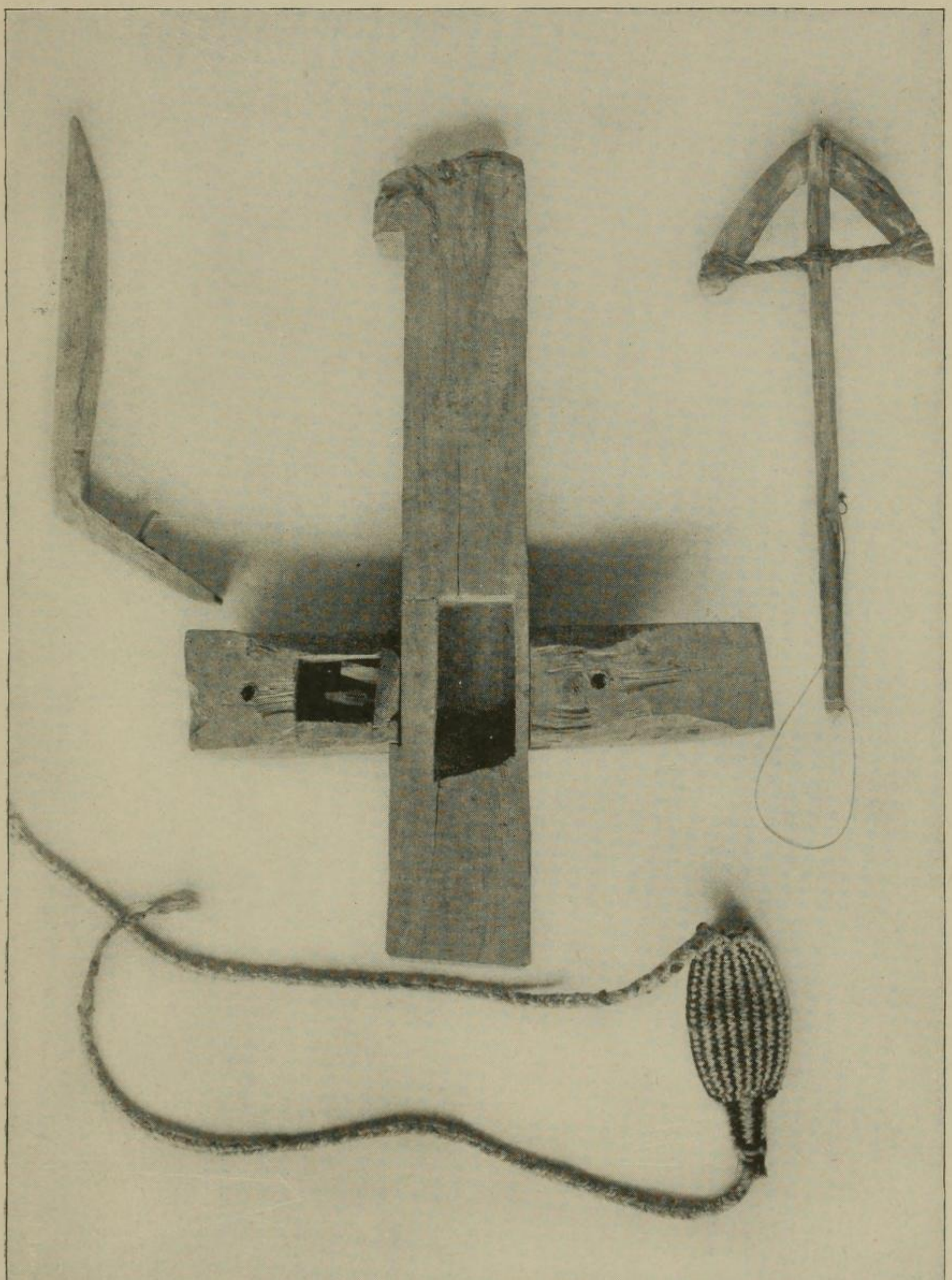
HUMAN-HEADED SPHINX, FRONT VIEW.

HUMAN-HEADED SPHINX, SIDE VIEW.

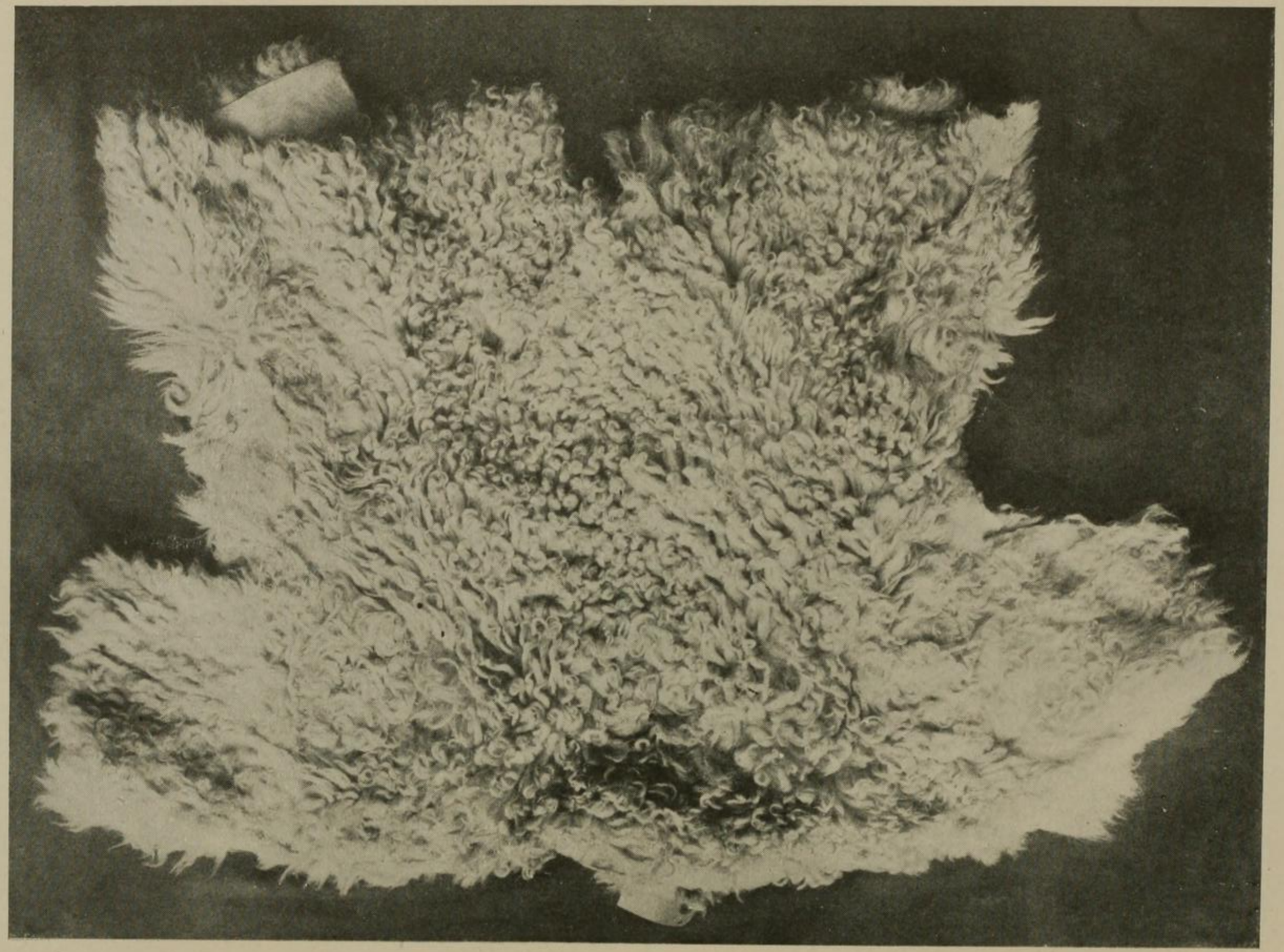


THE CHALDEAN DELUGE TABLET.

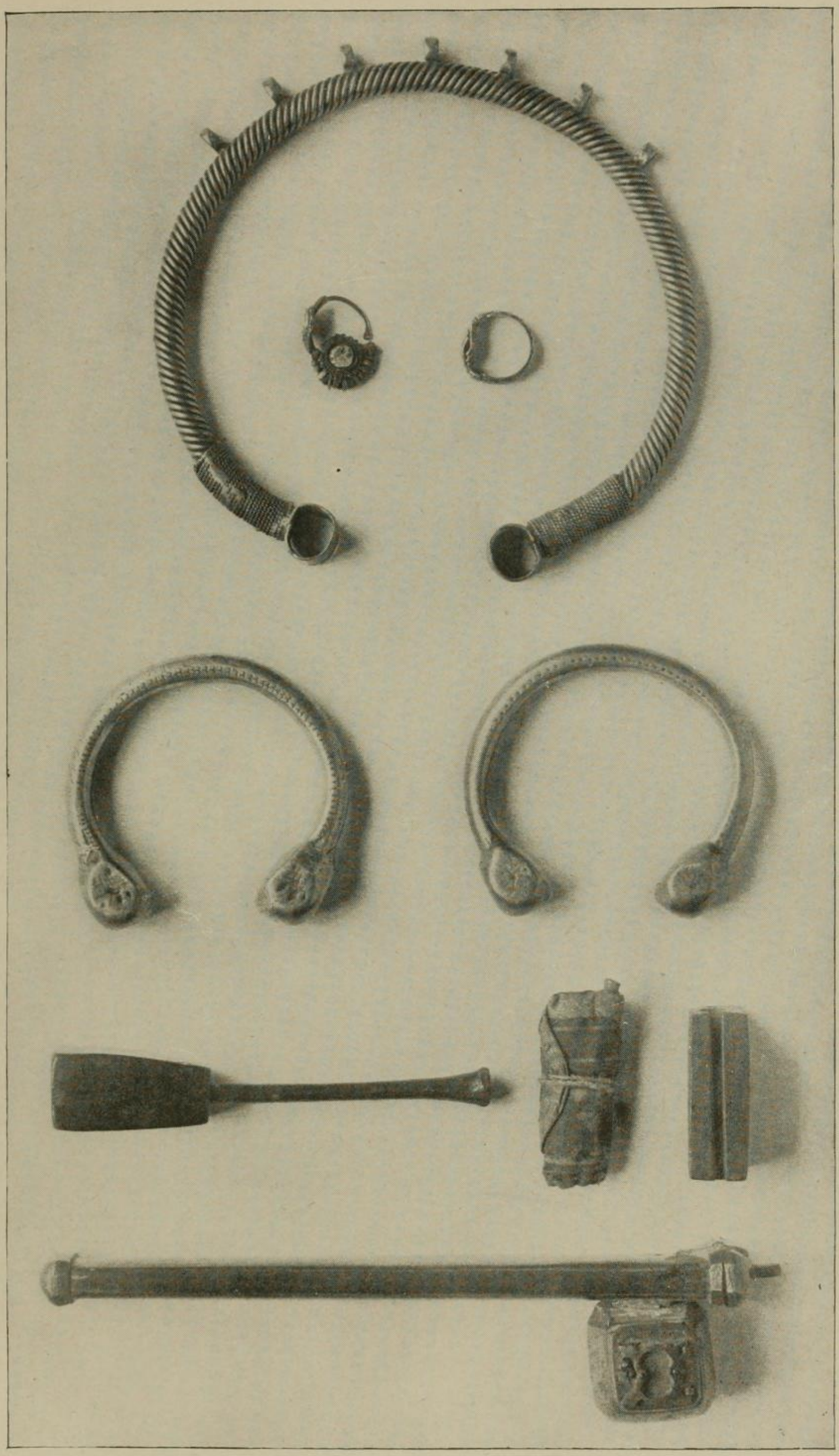
BABYLONIAN VOTIVE TABLET OF THE SUN-GOD.



SLING, BIRD TRAP, DOOR LOCK AND KEY.



SHEEPSKIN COAT.



1

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5

1, NECKLACE; 2, NOSE RING AND WEDDING RING; 3, ANKLETS; 4, KOHL WITH IMPLEMENTS FOR APPLYING IT TO THE EYES; AND 5, INKHORN.

COINS OF BIBLE LANDS.

way to the slightest touch. The bird trap is frequently compared with the ensnaring of the heedless and the weak (Amos iii, 5; Psalms cxxiv, 7; Proverbs vii, 23; Job xviii, 9; Ecclesiastes ix, 12). (Pl. 29.)

Sheepskin coat from Syria. Skins of animals were the primitive material used for clothing (Genesis iii, 21), and were not wholly disused at later periods. The "mantle" of the prophet Elijah (I Kings xix, 13, 19; II Kings ii, 13) was probably the skin of a sheep or some animal with the hair left on, wherefore he is called the "hairy man" (II Kings i, 8). This dress was characteristic of the office of prophet: "Beware of false prophets, which come to you in sheep's clothing, but inwardly are ravening wolves" (Matthew vii, 15; Zechariah xiii, 4). Pelisses of sheepskin still form an ordinary article of dress in the East (pl. 30).

On the middle shelf, geological and agricultural specimens and a selection of the insects of Palestine.

On the lower shelf, a collection of the precious stones of the Bible. There are three almost identical lists of precious stones in the Bible:

I. The description of the High Priest's "breastplate of judgment" (*hoshen ha-mishpat*), in which were placed, in gold setting, four rows of precious stones, three in each row, engraved with the names of the twelve tribes of Israel, Exodus, xxviii, 17–20:

[The Hebrew names are given in *italics*. The English names are of the Revised Version; those in parenthesis occur in the margin of the Revised Version.]

1. Sardius (Ruby), *odem*.
2. Topaz, *pitdah*.
3. Carbuncle (Emerald), *bareqeth*.
4. Emerald (Carbuncle), *nofek*.
5. Sapphire, *sappir*.
6. Diamond (Sardonyx), *yahalom*.
7. Jacinth (Amber), *leshem*.
8. Agate, *shebo*.
9. Amethyst, *ahlamah*.
10. Beryl (Chalcedony), *tarshish*.
11. Onyx (Beryl), *shoham*.
12. Jasper, *yashpeh*.

II. The description of the ornaments of the King of Tyre, Ezekiel, xxviii, 13:

1. Sardius (Ruby).
2. Topaz.
3. Diamond (Sardonyx).
4. Beryl.
5. Onyx.
6. Jasper.
7. Sapphire.
8. Emerald (Carbuncle).
9. Carbuncle (Emerald).

III. The description of the foundation of The Heavenly City, Revelation, xxi, 19, 20:

1. Jasper.
2. Sapphire (Lapis-Lazuli).
3. Chalcedony.
4. Emerald.
5. Sardonyx.
6. Sardius.
7. Chrysolite.
8. Beryl.
9. Topaz.
10. Chrysoprase.
11. Jacinth (Sapphire).
12. Amethyst.

Besides the stones enumerated in these lists there are probably mentioned the diamond by the Hebrew name of *shamir*, Jerem. xvii, 1; Ezek. iii, 9; Zach. vii, 12; amber (margin of Revised Version, electrum), Hebrew *hashmal*, Ezek. i. 4; and crystal, Hebrew *qerah* and *gabish*, properly ice, according to the view of the ancients that crystal was ice hardened by intense cold, Ezek. i, 22; Job xxviii, 18; Revel. iv, 6.—In many cases it is very uncertain whether the English rendering of the Hebrew names designates the same precious stones as the nomenclature of modern mineralogy.

The engraving of signets upon hard stones was practiced at an early period. The Israelites may have acquired the art from the Egyptians, who are known to have made use of the lapidary's wheel and emery powder, and are supposed to have been acquainted with the diamond and the method of engraving other stones by means of it. The Assyrians and Babylonians were very skillful in engraving on gems, many of which have been found in the ruins of their palaces and cities.

Silver necklace (Hebrew, '*anaq*,) Baghdad, Mesopotamia. The custom of wearing a necklace is alluded to in Proverbs i, 9; Canticles i, 10; iv, 9. It consisted either of a single band or chain, or of a series of ornaments, as pearls, pieces of corals, or diamonds strung together. Animals ridden by kings were decorated with collars of precious materials (Judges viii, 26). (Pl. 31, fig. 1.)

Gold nose ring (Hebrew, *nezem*), Baghdad, Mesopotamia. The Hebrew word *nezem* denotes both earring and nose ring. The latter is meant in Genesis xxiv, 47; Isaiah iii, 21; and Proverbs xi, 32: "As a jewel of gold in a swine's snout, so is a fair woman which is without discretion." In modern times the rings are often of extraordinary size and frequently reach to the mouth, so that they must be removed in eating (pl. 31, fig 2).

Silver anklets (Hebrew, '*akasim*), Baghdad, Mesopotamia. Anklets, as ornaments worn by women, are mentioned in Isaiah iii, 16, 18. From these passages it would seem that the tinkling produced by knocking the anklets against each other was their chief attraction (pl. 31, fig. 3).

Kohl (Hebrew, *puk*) and the implements of its use for painting ot the eyes. Baghdad, Mesopotamia. The practice of applying pigments to the eyelids and eyebrows, in order to enhance the brilliancy of the eyes was common in the East in Bible times (Jeremiah iv, 30; compare Proverbs vi, 25), and is still in everyday practice. The pigment, which is a preparation of antimony, is applied to the eyelids by means of a small blunt piece of wood, ivory, or metal, which is moistened, dipped in the mixture, and then drawn carefully along the edges of the eye. From the Arabic name "Kohl"

comes the term "alchohol," the fineness of the powder suggesting the idea of highly rectified spirits (pl. 31, fig. 4).

Lachish Tablet (the original of clay is in Constantinople). This tablet was discovered in 1892, by Dr. F. J. Bliss, in the ruins of Tell el Hesy, on the site of the ancient Lachish, which was one of the capitals of the Canaanites, situated southeast of Jerusalem, between Gaza and Eleutheropolis, conquered by Joshua (compare Joshua x, 3, 31, and 32). It was also besieged and taken by the Assyrian king, Sennacherib, during his invasion of Judah (II Kings xviii and xix; Isaiah xxxvi and xxxvii), in 701 B. C., and later succumbed to Nebuchadnezzar. The tablet, which dates before the conquest of Palestine by the Israelites, contains, in cuneiform script and in a Semitic dialect akin to the Aramaic, a letter from the chief of the territory adjoining Lachish, probably to the governor of Lachish, complaining that marauders from the neighboring region are besetting Atim, which is probably identical with Etam, of the south of Judah, mentioned in I Chronicles, iv, 32, and Samhi or Sam'a, now probably represented by the large ruin of Sam'ah, situated 5 miles to the south of Etam.

Hebrew seals. The use of seals or signet rings is already mentioned in the Patriarchal epoch, Genesis xxxviii, 18. The seal was either hung on a string around the neck, or worn in rings on the finger (compare Jeremiah xxii, 24). The seal was used for signing letters and documents, and also for sealing purses, doors, and the like (compare I Kings xxi, 8; Job xiv, 17; Matthew xxvii, 66). The custom of making an impression with the seal upon the forehead of a person is alluded to in the Epistle to the Galatians vi, 17; Revelation vii, 3.

Seal of Haggai, Son of Shebaniah. (Cast of the original of black stone). Jerusalem. Found by Sir Charles Warren in 1867 near the Haram esh-Sherif, the mosque of Omar (on the site of the temple). The names Haggai and Shebaniah may be connected with the rebuilding of the Temple.

Ancient Hebrew Weight. (Cast from the original of hematite.) Samaria. Found by Dr. Th. Chaplin. Weighs about 4 grains. Inscribed "quarter of a quarter of *netzeg*," which may have been a standard weight in Palestine.

Wright bead. (Cast from original of reddish yellow stone.) Jerusalem. Obtained by Prof. T. F. Wright. Inscribed *netzeg*, which may denote standard weight.

Syrian inkhorn (Hebrew, *geseth ha-sofer*), made of brass. Palestine. The inkhorn is mentioned in Ezekiel ix, 2, as being carried "by the side," that is, fastened to the girdle of the scribe. It

is still carried in this fashion in the Orient. The inkhorn consists of a tube containing reed pens and a receptacle for ink. (Pl. 31, fig. 5.)

A selection of Coins of Bible Lands. Coined money, which originated about 700 B. C. in Lydia, did not circulate among the Israelites previous to their return from the Babylonian captivity. The money mentioned in the Bible before this date consisted of precious metals, mostly silver, in the form of bars, ingots (properly "tongue," Joshua vii, 21), disks (*Kikkar*), or rings (often represented on Egyptian monuments) which may have had a fixed valuation and weight. Generally the metal was weighed on scales to determine its value. Thus the name of the piece of money most frequently occurring in the Bible, the *Shekel*, properly denotes "weight."

The first coins mentioned in the Bible after the exile are the *Adarkon* and *Darkemon* (Ezra viii, 27; Nehemiah vii, 72), which are identified with the Persian gold Daric. Upon the overthrow of the Persian monarchy, Greek coins of the denominations of talents and drachms began to circulate in Palestine. The earliest Jewish coins are shekels and half shekels of silver, and one-sixth of shekel of bronze, struck by Simon Maccabaeus, 143 B. C. (I Maccab. xv, 6). Some attribute the first coinage of the shekel to Ezra. The succeeding Maccabaean or Hasmonaean princes down to 37 B. C. struck small bronze coins with Hebrew or Hebrew and Greek inscriptions. The Idumaean or Herodian princes coined bronze money bearing their names in Greek characters. At the same time the Roman procurators of Judaea (since 6 B. C.) also struck bronze coins with Greek inscriptions. The last coins struck by the Jews were those during the revolt under Bar-Cochba (132 A. D.). Greek and Roman money was current in Palestine in addition to the native Hebrew coins, as seen from the New Testament. The selection includes the following coins.

Shekel. Silver. Attributed to Simon Maccabaeus. Obverse, Pot of Manna (Exod. xvi, 33), with legend: "Shekel of Israel, year two:" reverse, Budding rod of Aaron (Numb. xvii, 8), legend: "Holy Jerusalem."

Coin of John Hyrcanus (136–106 B. C.). Original of copper. Obverse, "Jochanan, High Priest and Prince of the Jewish Confederation"; reverse, Two cornucopias and a poppy head.

Widow's Mite. Coin of Alexander Jannaeus (105–78 B. C.). Copper (facsimile). Obverse, "Jonathan the High Priest and the Confederation of the Jews" within a wreath of olive; reverse, Two cornucopias and a poppy head. It is assumed that this or a similar

coin is referred to by the term "widow's mite" in Mark xii, 42; Luke xii, 6, though in the original it is denominated *lepton*, as none but Jewish coins were permitted within the Temple precincts.

Coin of Herod Antipas. Bronze. Obverse, "Herod, Tetrarch," with a palm branch; reverse, Tiberias within a wreath. Herod Antipas, Tetrarch of Galilee and Petrea, A. D. 4–39, is often mentioned in the New Testament (Matt. xiv, 1–3; Luke iii, 1, 19, etc.). It was he who beheaded John the Baptist (Matt. xiv, 1), and to him was Christ sent for examination by Pilate (Luke xxiii, 7). In honor of the Emperor Tiberius he founded the city of Tiberias on the western shore of the Sea of Gennesareth, where the coin was struck.

Coin of Herod Philip II (died A. D. 34). Struck at Caesarea Philippi in honor of the Eighth Roman Legion. Copper. (Obverse "Herod Philip," with his portrait; reverse, the standards of the Legion. Herod Philip is mentioned once in Luke iii, 1, as Tetrarch of Ituraea; Caesarea Philippi was often visited by Christ (Matt. xvi, 13; Mark viii, 27). It is now a small village called Banijas, near Mount Hermon.

Coin of Agrippa II (last Jewish king). Bronze. Obverse, Name and head of the Emperor; reverse, "Money of Agrippa, struck at Neronias" (=Caesarea Philippi). Herod Agrippa II, the last Jewish prince of the house of Herod, is mentioned (Acts xxv, 13, and xxvi, 2, 28) as having an interview with the Apostle Paul.

Denarius, or Roman Tribute Penny. Silver. Obverse, "Tiberius Caesar, son of deified Augustus"; reverse, "Pontifex Maximus" (Chief Priest). Value about 16 cents. The denarius was the tribute money that the Jews had to pay to the Romans, and it is very likely that a variety of this coin was shown Christ with the question: "Is it lawful to give tribute to Caesar or not?" (Matt. xxii, 17.)

Stater. Antioch. Silver (facsimile). Obverse, "(Money) of Caesar Augustus," with a head of the Emperor; reverse: Tyche (Fortune), as genius of the city of Antioch, with her foot on the river god Orontes, and the words: "Thirtieth year of the victory" (i. e., Actium). The stater, about equal in value to the shekel, is mentioned in Matt. xvii, 27, as having been found by Peter in the mouth of the fish, sufficient to pay the Temple tribute, which was half a shekel (Exod. xxx, 13, 15), for Christ and himself.

Coin of Caesarea. Bronze. Obverse, Head of Augustus Caesar. Caesarea, founded by Herod I, is frequently mentioned in the Acts. It was the scene of the conversion of the centurion Cornelius (x); Philip preached the Gospel here (xxi, 8); Paul was imprisoned here two years before he was sent to Rome (xxiv–xxvi); here also Herod Agrippa I died, 44 B. C. (xii, 19). It was the

residence of the Roman Governors, and here the Jewish war against Rome broke out.

Tetradrachm of Sidon. Silver. Obverse, Head of the city; reverse, "(Money of the Sidonians) Holy and inviolable," with the figure of Astarte. Sidon, the oldest city of Phenicia, is often mentioned in the Bible (Joshua, xix, 28; I Kings v, 6; Acts xxvii, 3). It is at present represented by the town of Saida, with about 15,000 inhabitants.

Tetradrachm of Tyre. Silver. Obverse, Head of Hercules as Baal (Lord) of the city. Tyre, next to Sidon, the oldest and most important city of Phenicia, is often referred to in the Bible. During the period of David and Solomon friendly relations were entertained between Tyre and Israel (I Kings v, 15 ff.). The coast of Tyre was visited by Christ (Matt. xv, 21; Mark vii, 24), and Paul landed at Tyre on one of his missionary voyages (Acts xxi, 3). The modern Çur is an unimportant town with about 5,000 inhabitants.

Coin of Ashkelon. Bronze. Struck by order of Emperor Alexander Severus, about A. D. 228. Ascalon, or Ashkelon, was one of the five chief cities of the Philistines, situated 30 miles southwest of Jerusalem (Joshua xiii, 3; I Samuel vi, 17). It was the center of the worship of Derceto, the supposed female counterpart of Dagon (Jud. xvi, 23; I Sam. v). It is now represented by the village of Askalan.

Coins of the City of Damascus. Copper. Damascus, the ancient capital of Syria, is mentioned as early as in the history of Abraham (Genesis xiv, 15; xv, 2). Later it frequently came in contact with Israel (II Sam. viii, 6; II Kings xvi, 9 f., etc.). In the New Testament it is especially known from the history of the Apostle Paul (Acts ix; xxii, 6).

Tetradrachm of the City of Babylon. Silver. Struck by Mazaios, Governor under Alexander the Great, 331–328 B. C.

Tetradrachm of Alexander the Great (336–323 B. C.). Obverse, head of Alexander; reverse, Zeus seated holding the eagle. Alexander the Great is mentioned in I Maccabees vi, 2. It is also assumed that he is typified under the emblem of the "he-goat" in Daniel viii, 5, and that his empire is meant by the "fourth monarchy" depicted in Daniel ii, 40 and vii, 23 f.

Tetradrachm of Seleucus I Nicator, King of Syria, 312–280 B. C. Silver. Obverse, Head of Seleucus; reverse, "King Seleucus," with figure of Jupiter. The city of Seleucia, the principal port of Antioch, from which Paul and Barnabas set out for Cyprus (Acts xiii, 4), was named after Seleucus I.

Coin of Antiochus III, the great, King of Syria, 223–183 B. C. Silver. Obverse, Head of the King; reverse, "King Antiochus,"

with the figure of Apollo seated on tripod. Antiochus is mentioned in I Macc. viii, 6 ff.; Josephus, Antiquities xii, 3.

Tetradrachm of Antiochus VII Sidetes, or Euergetes, King of Syria, 138–127 B. C. Silver. Obverse, Head of the King; reverse, "(Money) of King Antiochus Euergetes," with the figure of Minerva holding Victory. Antiochus Sidetes is mentioned, I Macc. xvi, 1 ff., as being defeated by the sons of the High Priest Simeon.

Coin of Demetrius Soter, King of Syria 162–150 B. C. Obverse, head of Demetrius; reverse, "King Demetrius Soter," with seated female figure. He waged war against the Maccabees and is often mentioned in the books of the Maccabees (I Maccabees viii, 31; x, 2, etc.).

Tetradrachm of Ephesus. Silver. Struck 140 B. C. Ephesus, in ancient time one of the most important cities in Asia Minor, was especially celebrated for its temple of Diana (Acts xix, 35). It was the place of residence of Paul (Acts xix, 1 ff.), of Timothy (I Timothy i, 3), and of the Apostle John, who probably died there. Ephesus was one of the seven churches referred to in the Revelations (Revelations ii, 4). It was also the seat of the third general Council (431 A. D.), and of the "Robber Synod" (449 A. D.).

Tetradrachms of Tarsus. Silver. Struck by Satrap Datames, 250 B. C. Tarsus, the ancient capital of Cilicia, Asia Minor, was the home of Apostle Paul (Acts ix, 11, 30; xi, 25; xxii, 3). It is still a city of about 10,000 inhabitants. It is now accessible from Alexandretta by rail.

Coin of Cyprus. Bronze. Struck under Emperor Claudius (A. D. 41–54), and the Proconsul Sergius Paulus. Cyprus, one of the largest islands in the Mediterranean, was the birthplace of Barnabas (Acts iv, 36), and often visited by Paul, while Sergius was its proconsul (Acts xiii, 4 ff., etc.). In the Old Testament it is referred to by the name of Kittim (Gen. x, 4; Numb. xxiv, 24; Dan. xi, 30, etc.).

Hemidrachms of Ephesus. Silver. Struck 200 B. C. Obverse, Bee; reverse, Deer.

Aes (farthing) of Thessalonica. Copper. Struck 88 B. C. Obverse, Head of Janus; reverse, Dioscuri. Thessalonica, formerly the capital of Macedonia, is the modern Salonica. Two Epistles of Paul are addressed to the Christians of this place.

Coin of Thessalonica. Copper. Struck 158 B. C. Obverse, Head of City Nymph; reverse, Galley.

Tetradrachm of Macedonia. Silver. Struck between 156 and 146 B. C. Obverse, Head of Minerva upon a Macedonian shield; reverse, Club of Hercules. Macedonia is often mentioned in the New Testament. Paul visited this province on his second and

third missionary voyage and founded congregations in several of its cities (Acts xvi and xx).

Didrachms of Athens. Silver. (470 to 230 B. C.). Obverse, Head of Athene (Minerva); reverse, Owl. Athens, the former capital of Attica and the modern capital of Greece, was visited by Paul, where he delivered the discourse on the Areopagus (Acts xvii, 15 ff.).

Tetradrachms of Athens. Silver. (470 to 230 B. C.). Obverse, Head of Athene (Minerva); reverse, Owl (the bird sacred to Athene) (pl. 32).

On the bottom of the case: Goatskin water bag (Hebrew, *nod*, *hemeth*). Palestine. Skin bottles are referred to in Genesis xxi, 14; Joshua ix, 5. Christ employs them in a comparison, "Neither do men put new wine into old wine skins" (Matthew ix, 17). Such bottles are made from the whole skins of animals, generally the goat. After the animal is killed and its feet and head removed, the rest of the body is drawn out entire without opening the belly, and after the skin has been tanned, the places where the legs were cut off are sewed up; when the skin is filled it is tied about the neck Skin bottles are also in use in Spain, in the City of Mexico, and by the Eskimos (pl. 33, fig. 3).

SYRIAN MORTAR AND PESTLE. SYRIA.

The mortar is of white marble, 8 inches high by 12 inches square; the pestle is of wood, 14 inches long. The mortar is at present used in Syria, particularly in the preparation of a dish called *Koebe*, consisting of meat and wheat, which, after having been crushed in the mortar, is rolled out, cut in diamond forms, which, sandwiched with layers of meat, are baked in a pan. In ancient times the mortar was used for crushing grain in general. Many stone mortars have been found in the excavations of Gezer, a city often mentioned in the Old Testament (Joshua x, 33; xvi, 10, etc.).

MILLSTONES (HEBREW, REHAYIM). BAGHDAD, MESOPOTAMIA.

Millstones are often referred to in the Bible, and they are still used in grinding corn, in the same form as in ancient times. They consist of two cylindrical stones; the lower one is firmly planted on the ground and provided with a convex upper surface on which the concave under surface of the other stone revolves. The upper stone, which is called *rekeb* or rider, has a hole through its center into which the grain is dropped, and through which runs a shaft to hold the stone in place. A handle attached to the "rider" enables a person sitting near to turn it around and grind the grain, which is fed with

the hand that is free. It was forbidden to take the mill or even the upper stone in pledge, as taking "the life" (that is, the means of sustaining life), Deuteronomy xxiv, 6. Each day as much grain as was needed was ground, and the "voice of the mill" became proverbial (Jeremiah xxv, 10; Ecclesiastes xii, 4). At the time of Christ, mills turned by asses were also employed (Matthew xviii, 6, Revised Version, margin). At present water mills are also largely used in Syria (pl. 33, figs. 1, 2, and pl. 34).

WOODEN DOOR LOCK AND KEY. BAGHDAD, MESOPOTAMIA.

The doors of Eastern houses, which are usually small and low, seem early to have been provided with hinges turning in sockets and with locks and keys in whose construction no little ingenuity was displayed (Judges iii, 23, 25; Proverbs xxvi, 14; Canticles v, 5; Nehemiah iii, 3). It is likely that locks and keys were made both of iron and of wood, according to circumstances. A wooden key, now quite generally in use, is described as consisting of a piece of wood about a foot in length, provided at one end with a series of pegs. It is thrust into a little opening at the side of the door and applied to the bolt. This has a corresponding series of holes into which the pegs of the key fit, displacing thereby another set of pegs, by which the bolt is held in its place (pl. 29). Pair of Shepherd's Shoes. Made of goat skin. Syria.

35 and 36. The next two cases contain a collection of Bibles and musical instruments of the Bible. The Museum's collection of some sixty-five Bibles includes manuscripts and old editions of the original text, as well as copies of the most important ancient and modern translations of the scriptures.

EDITIONS OF THE ORIGINAL TEXT OF THE BIBLE.

Hebrew Bible. Facsimile of the Aleppo Codex. The original manuscript, which is assigned to Aaron ben Asher (beginning of the tenth century A. D.), but is probably of somewhat later origin, is preserved in the Synagogue of Aleppo, Syria. (Pl. 35.)

Hebrew Bible without vowel points. Printed by Christopher Plantin in Antwerp, 1573–'74.

Hebrew Bible. Edited by Elias Hutter in 3 volumes. Hamburg, 1587. Hutter was Professor of Hebrew in Leipzig. The peculiarity of this Bible consists in the fact that the roots are printed in solid black letters, while the prefixes, suffixes, and formative letters (called servile letters in Hebrew grammar) are in outline.

Rabbinic Bible. Edited by Joannes Buxtorf, printed by Ludwig Koenig in Basel, Switzerland, 1618–'19. The Bible contains the

Old Testament in two folio volumes. The Hebrew text is surrounded by the Massora, the Targum, and the commentaries of Rashi, Ibn Ezra, Kimchi, and others.

Greek New Testament. First American edition. Printed by Isaiah Thomas, Worcester, Massachusetts, 1800. (Pl. 36.)

Greek New Testament. Second American edition. Printed by S. F. Bradford, Philadelphia, 1806.

ANCIENT VERSIONS OF THE BIBLE.

The oldest and most important version of the Old Testament, which in turn became the parent of many other translations, is the Greek of Alexandria, Egypt, known by the name of the Septuagint. The name Septuagint is derived from the tradition that it was made by a company of seventy (sometimes seventy-two) Jewish scholars, at Alexandria, under the reign of Ptolemy Philadelphus, 285–247 B. C., who desired a copy for the library he was gathering. The truth of its origin seems to be that Alexandria became, after the Babylonian captivity, a center of the Jewish population. As time went on, the Jews lost command of the Hebrew language and required a translation of their sacred books into Greek. The men who met this want differed very much in knowledge and skill, were of an indeterminate number and of different periods, beginning the work at the time of Ptolemy Philadelphus and ending it about 150 B. C. The Pantateuch is much more carefully translated than the rest of the Bible. Books now considered apocryphal were included in the Canon. The Septuagint was used by the Jews until the second century of the Christian era, when they reverted to the Hebrew. It was also, no doubt, used by the Apostles and by the Church Fathers, who refer to it under the name "Vulgata."

Codex Vaticanus. Containing the Old and New Testament. Facsimile. Six volumes. Rome, 1868–1881. The Codex Vaticanus, so called from the fact that it is preserved in the Vatican at Rome, is the best and oldest Biblical manuscript now known. It is written in Greek in uncial characters (capitals), and was probably the work of two or three scribes in Egypt during the fourth century. The original is probably the most valuable treasure of the Vatican library. It was brought to Rome by Pope Nicholas V in 1448. The manuscript is not quite complete; there are a few gaps in the Old Testament, and the New Testament ends with Hebrews ix, 14.

Codex Sinaiticus. Facsimile edition, Petrograd, 4 volumes. 1862. The Codex Sinaiticus was discovered in 1859 by Constantine Tischendorf in the Convent of St. Catharine at the foot of Mount Sinai. It was transferred to Cairo, then to Leipzig, and later to Petrograd, where it is preserved in the Imperial Library. This

text was printed at Leipzig from types especially cast in imitation of the original, and published at St. Petersburg at the expense of Czar Alexander II. The original is on parchment, written in uncial characters (capitals), four columns to a page, and 48 lines on a page. It dates from the middle of the fourth century.

Codex Alexandrianus. Printed in type to represent the original manuscript. London, 1816. This facsimile version of the Alexandrian or Egyptian text of the Bible appeared in 1816, in four volumes, Vols. I–III containing the Old Testament, and Vol. IV the New Testament. The original manuscript was presented to King Charles I by Sir Thomas Roe, from Cyril, Lucar Patriarch of Constantinople. It was transferred to the British Museum in 1753. It is written on parchment in uncials without division of chapters, verses, or words. Tradition places the writing of this manuscript in the fourth century, but it is now generally assumed to date from the fifth century.

The Washington Manuscript of Deuteronomy and Joshua. (Facsimile). Edited by Professor Henry A. Sanders, of the University of Michigan. This manuscript, together with three other Biblical manuscripts, was acquired by the late Mr. Charles L. Freer, of Detroit, Michigan, from an Arabian dealer in Gizeh, near Cairo, Egypt, in 1906. It consists of 102 parchment leaves, and contains the Greek Septuagint version of Deuteronomy and Joshua, written in fine uncial letters in two columns of thirty-one lines on each page and is in good state of preservation. Professor Sanders, the editor of the manuscript, would connect it with the monastery of the Vinedresser, which was near the third pyramid, and believes it to have been written in the early part of the fifth century A. D. It is, therefore, one of the oldest and most important manuscripts of the Bible known. It has received the name Washington Manuscript because it was transferred to the Smithsonian Institution, and is deposited in the Freer Gallery of Art in Washington. (Pl. 37.)

The Washington Manuscript of the Four Gospels. (Facsimile.) Edited by Professor Henry A. Sanders, of the University of Michigan. The Manuscript, together with three other Biblical manuscripts, was acquired by Mr. Charles L. Freer, of Detroit, Michigan, from an Arabian dealer in Egypt in 1906. It consists of 187 parchment leaves, or 374 pages, and contains the four Gospels in the order of Matthew, John, Luke, and Mark, written in one column of 30 lines on each page, and in good state of preservation. The leaves of the manuscript were held between covers of two wooden panels painted with the portraits of the four Evangelists in the order in which their Gospels appear in the text, namely, Matthew and John on the left-hand board, Luke and Mark on the right-hand board.

Professor Sanders, the editor of the manuscript, would place it in the fourth century A. D. (Pl. 38.)

Ethiopic Version of the Bible. Photograph of original Bible preserved in the United States National Museum. This copy was obtained from King Theodore, of Abyssinia, by Lord Napier, and by him presented to General Grant. The Ethiopic version was made in the fourth century, probably by Frumentius, the Apostle of Ethiopia. It has 46 books in all, containing, in addition to the Canon, a large number of Apocryphal books.

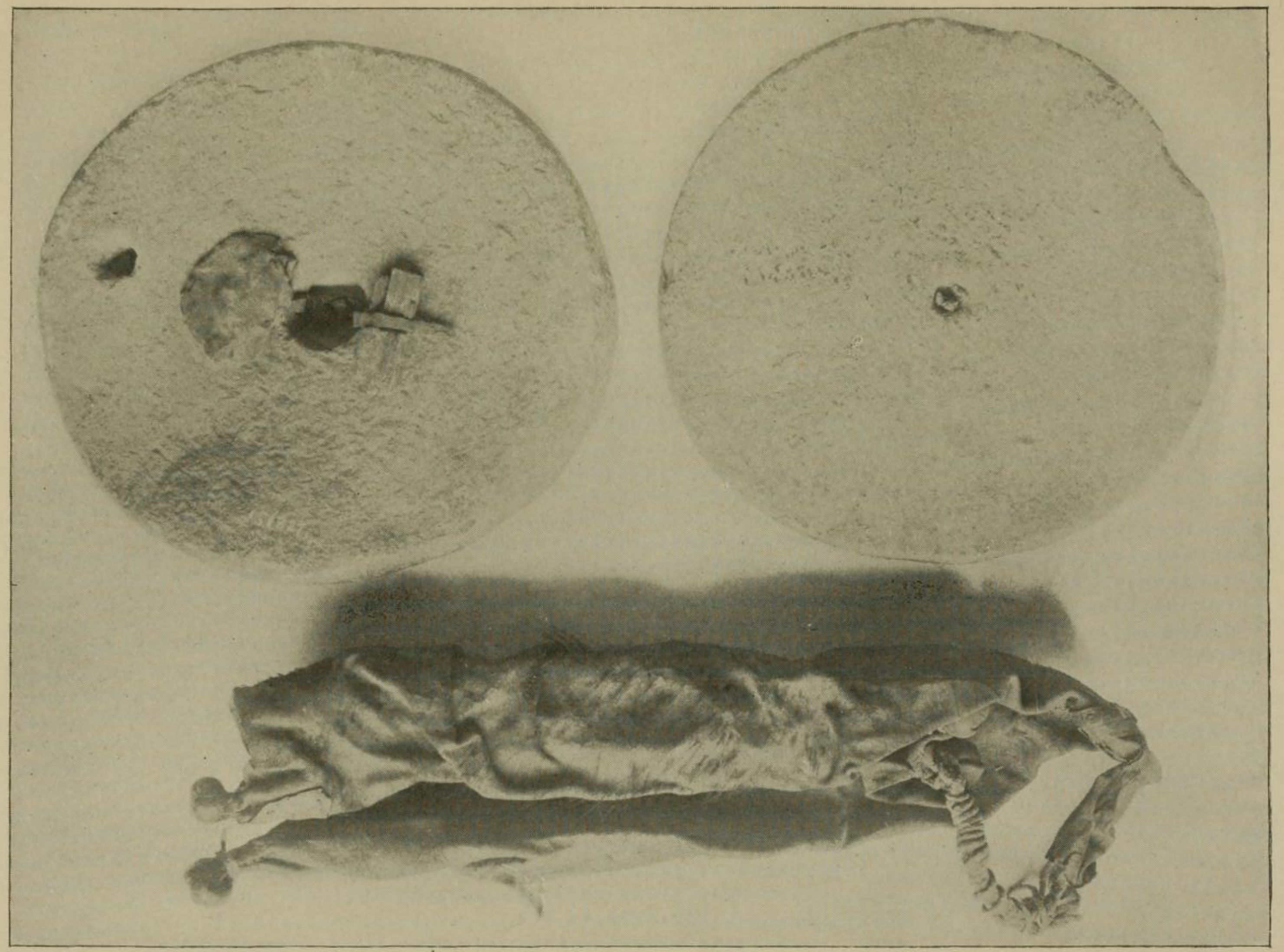
Latin Bible. Folio edition printed by Anthony Coburger in Nuremberg, Germany, 1478. The Latin Bible goes back to a Latin translation made from the Septuagint in the second century, and known as *Vetus Itala* or "Old Italic." The present version, however, is due to St. Jerome (Hieronymus), and was made by him in Bethlehem between 383 and 407 A. D. It was for a long time the Bible of the Western Church, and of a large part of the Eastern Church. Though no doubt based on the Septuagint, the translation of the Old Testament was made with reference to the original Hebrew, with which Jerome was well acquainted. The translation is commonly called the Vulgate, a name which was originally given to the Septuagint. It is still in use by the Roman Catholic Church. It was the first Bible ever printed, being produced by Gutenberg between 1450 and 1455, and constituted the first important specimen of printing with metal types. This Bible—one of the twelve Coburger Latin editions—is printed on 468 leaves in double columns, with fifty-one and fifty-three lines to the column. It has no title page, signatures, catchwords, or initials. The initial letters of paragraphs are painted by hand.

Greek and Latin New Testament of Erasmus. Editio princeps. Printed by Frebonius in Basel, Switzerland, 1516. The edition of the Greek New Testament, by Erasmus, was the first ever published, and became, with a few modifications, the *received text.* Luther's translation was based upon it. To the Greek original Erasmus added a corrected Latin version with notes. (Pl. 39.)

Arabic Version of Saadia Gaon. In Hebrew characters. The Pentateuch, edited by J. Derenbourg, Paris, 1893. Saadia Gaon was born at Fayum, A. D. 892, and died in 942. His translation of the Bible is rather a paraphrase and has a high exegetical value.

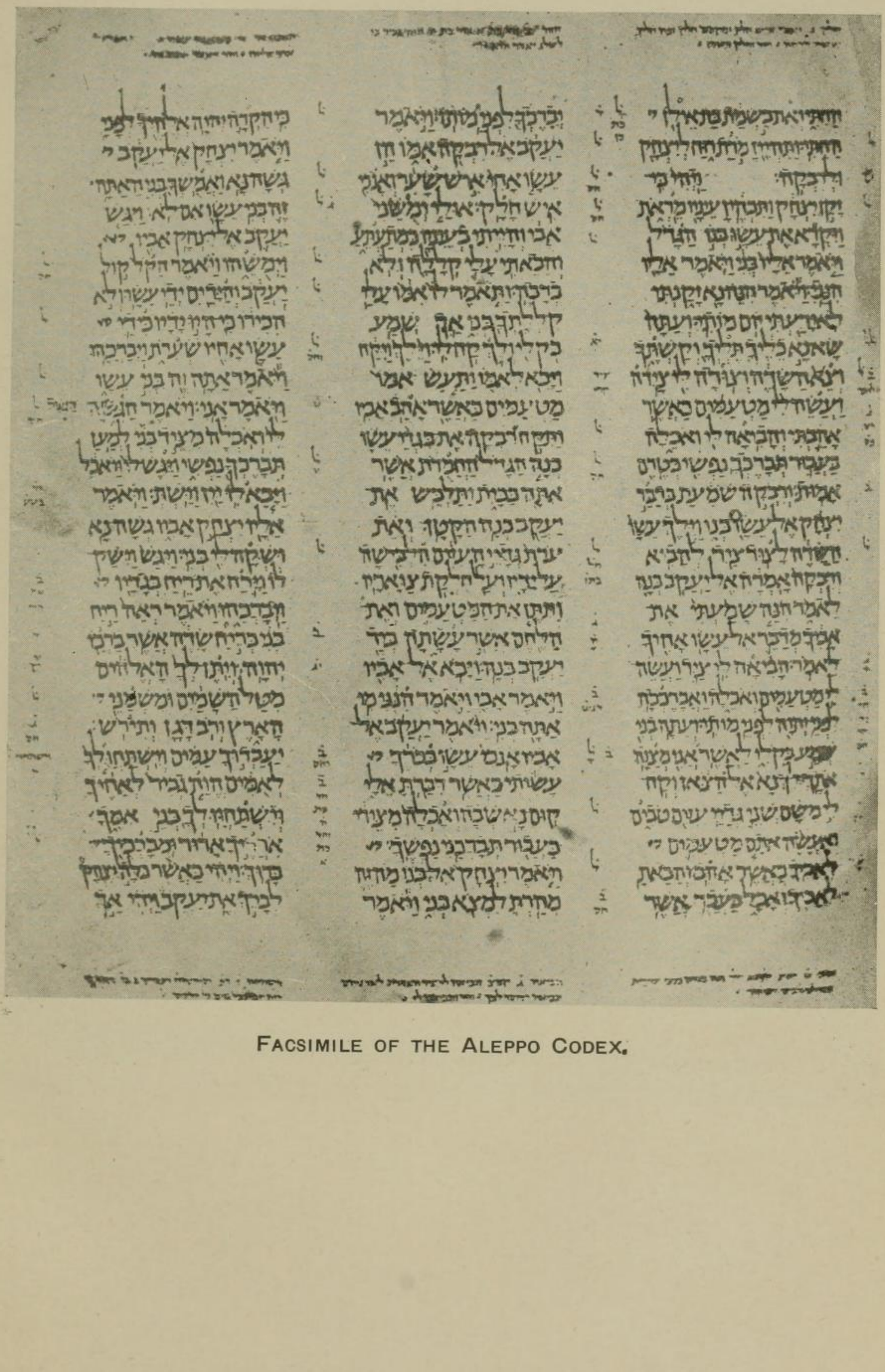
ENGLISH VERSIONS OF THE BIBLE.

The New Testament Translated by John Wycliffe, about 1380. Printed from a contemporary manuscript by William Pickering. London, 1848. John Wycliffe was born in Yorkshire, about 1320. He studied at Baliol College, Oxford, and was for some time master

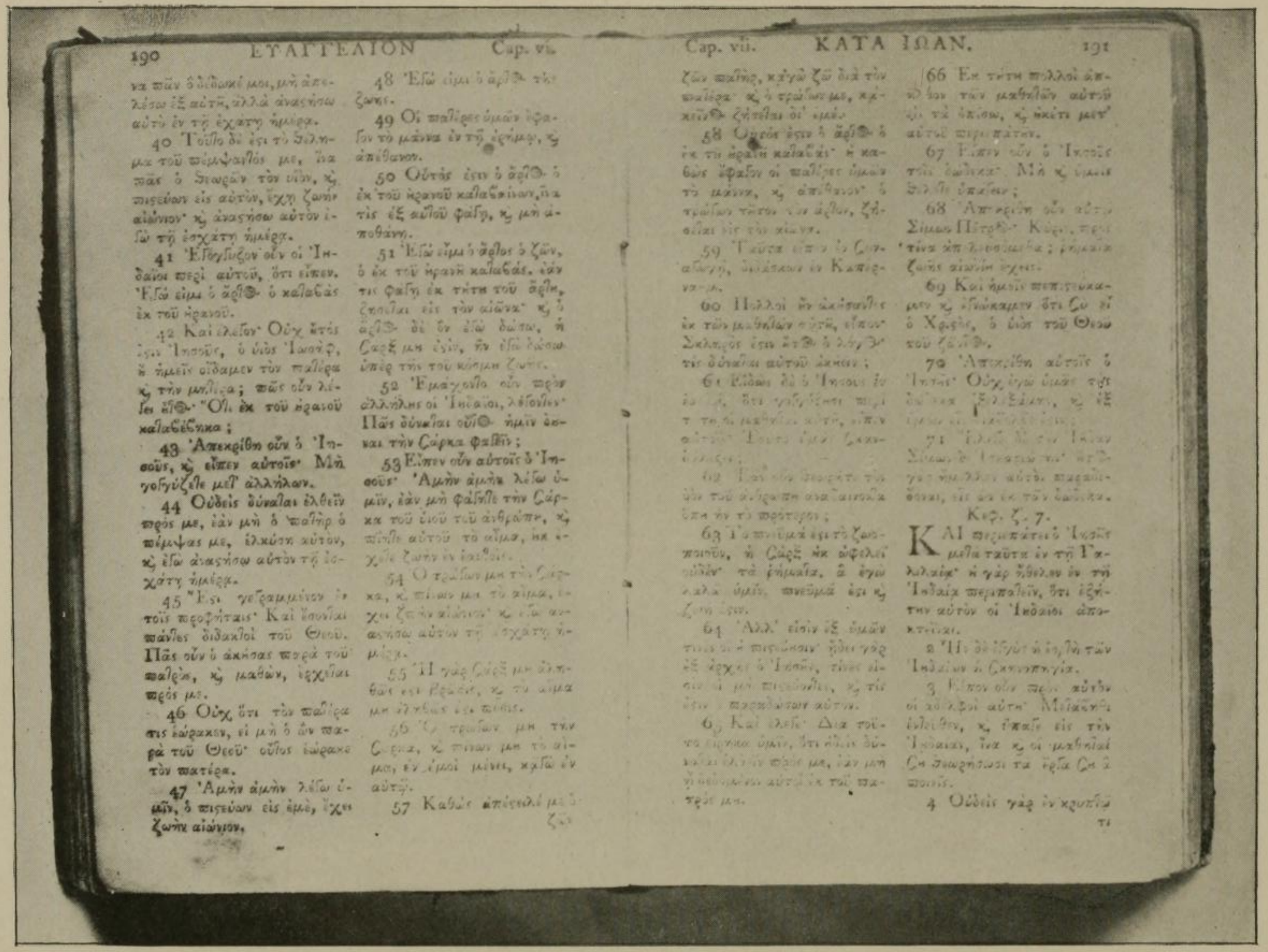


MILLSTONES, GOATSKIN WATER BAG.

WOMEN GRINDING CORN BY HAND MILL.



FACSIMILE OF THE ALEPPO CODEX.



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να πᾶν ὁ δέδωκέ μοι, μὴ ἀπολέσω ἐξ αὐτῆ, ἀλλὰ ἀναστήσω αὐτὸ ἐν τῇ ἐσχάτῃ ἡμέρᾳ.

40 Τοῦτο δέ ἐστι τὸ θέλημα τοῦ πέμψαντός με, ἵνα πᾶς ὁ θεωρῶν τὸν υἱὸν, καὶ πιστεύων εἰς αὐτὸν, ἔχῃ ζωὴν αἰώνιον· καὶ ἀναστήσω αὐτὸν ἐγὼ τῇ ἐσχάτῃ ἡμέρᾳ.

41 Ἐγόγγυζον οὖν οἱ Ἰουδαῖοι περὶ αὐτοῦ, ὅτι εἶπεν, Ἐγώ εἰμι ὁ ἄρτος ὁ καταβὰς ἐκ τοῦ οὐρανοῦ.

42 Καὶ ἔλεγον· Οὐχ οὗτός ἐστιν Ἰησοῦς, ὁ υἱὸς Ἰωσὴφ, οὗ ἡμεῖς οἴδαμεν τὸν πατέρα καὶ τὴν μητέρα; πῶς οὖν λέγει οὗτος· Ὅτι ἐκ τοῦ οὐρανοῦ καταβέβηκα;

43 Ἀπεκρίθη οὖν ὁ Ἰησοῦς, καὶ εἶπεν αὐτοῖς· Μὴ γογγύζετε μετ' ἀλλήλων.

44 Οὐδεὶς δύναται ἐλθεῖν πρός με, ἐὰν μὴ ὁ πατὴρ ὁ πέμψας με, ἑλκύσῃ αὐτὸν, κἀγὼ ἀναστήσω αὐτὸν τῇ ἐσχάτῃ ἡμέρᾳ.

45 Ἔστι γεγραμμένον ἐν τοῖς προφήταις· Καὶ ἔσονται πάντες διδακτοὶ τοῦ Θεοῦ. Πᾶς οὖν ὁ ἀκούσας παρὰ τοῦ πατρὸς, καὶ μαθὼν, ἔρχεται πρός με.

46 Οὐχ ὅτι τὸν πατέρα τις ἑώρακεν, εἰ μὴ ὁ ὢν παρὰ τοῦ Θεοῦ· οὗτος ἑώρακε τὸν πατέρα.

47 Ἀμὴν ἀμὴν λέγω ὑμῖν, ὁ πιστεύων εἰς ἐμὲ, ἔχει ζωὴν αἰώνιον.

48 Ἐγώ εἰμι ὁ ἄρτος τῆς ζωῆς.

49 Οἱ πατέρες ὑμῶν ἔφαγον τὸ μάννα ἐν τῇ ἐρήμῳ, καὶ ἀπέθανον.

50 Οὗτός ἐστιν ὁ ἄρτος ὁ ἐκ τοῦ οὐρανοῦ καταβαίνων, ἵνα τις ἐξ αὐτοῦ φάγῃ, καὶ μὴ ἀποθάνῃ.

51 Ἐγώ εἰμι ὁ ἄρτος ὁ ζῶν, ὁ ἐκ τοῦ οὐρανοῦ καταβάς. ἐάν τις φάγῃ ἐκ τούτου τοῦ ἄρτου, ζήσεται εἰς τὸν αἰῶνα· καὶ ὁ ἄρτος δὲ ὃν ἐγὼ δώσω, ἡ σάρξ μού ἐστιν, ἣν ἐγὼ δώσω ὑπὲρ τῆς τοῦ κόσμου ζωῆς.

52 Ἐμάχοντο οὖν πρὸς ἀλλήλους οἱ Ἰουδαῖοι, λέγοντες· Πῶς δύναταί οὗτος ἡμῖν δοῦναι τὴν σάρκα φαγεῖν;

53 Εἶπεν οὖν αὐτοῖς ὁ Ἰησοῦς· Ἀμὴν ἀμὴν λέγω ὑμῖν, ἐὰν μὴ φάγητε τὴν σάρκα τοῦ υἱοῦ τοῦ ἀνθρώπου, καὶ πίητε αὐτοῦ τὸ αἷμα, οὐκ ἔχετε ζωὴν ἐν ἑαυτοῖς.

54 Ὁ τρώγων μου τὴν σάρκα, καὶ πίνων μου τὸ αἷμα, ἔχει ζωὴν αἰώνιον· καὶ ἐγὼ ἀναστήσω αὐτὸν τῇ ἐσχάτῃ ἡμέρᾳ.

55 Ἡ γὰρ σάρξ μου ἀληθῶς ἐστι βρῶσις, καὶ τὸ αἷμα μου ἀληθῶς ἐστι πόσις.

56 Ὁ τρώγων μου τὴν σάρκα, καὶ πίνων μου τὸ αἷμα, ἐν ἐμοὶ μένει, κἀγὼ ἐν αὐτῷ.

57 Καθὼς ἀπέστειλέ με ὁ ζῶν

Cap. vii. ΚΑΤΑ ΙΩΑΝ. 191

ζῶν πατὴρ, κἀγὼ ζῶ διὰ τὸν πατέρα· καὶ ὁ τρώγων με, κἀκεῖνος ζήσεται δι' ἐμέ.

58 Οὗτός ἐστιν ὁ ἄρτος ὁ ἐκ τοῦ οὐρανοῦ καταβάς· οὐ καθὼς ἔφαγον οἱ πατέρες ὑμῶν τὸ μάννα, καὶ ἀπέθανον· ὁ τρώγων τοῦτον τὸν ἄρτον, ζήσεται εἰς τὸν αἰῶνα.

59 Ταῦτα εἶπεν ἐν συναγωγῇ, διδάσκων ἐν Καπερναούμ.

60 Πολλοὶ οὖν ἀκούσαντες ἐκ τῶν μαθητῶν αὐτοῦ, εἶπον· Σκληρός ἐστιν οὗτος ὁ λόγος· τίς δύναται αὐτοῦ ἀκούειν;

61 Εἰδὼς δὲ ὁ Ἰησοῦς ἐν ἑαυτῷ ὅτι γογγύζουσι περὶ τούτου μαθηταὶ αὐτοῦ, εἶπεν αὐτοῖς· Τοῦτο ὑμᾶς σκανδαλίζει;

62 Ἐὰν οὖν θεωρῆτε τὸν υἱὸν τοῦ ἀνθρώπου ἀναβαίνοντα ὅπου ἦν τὸ πρότερον;

63 Τὸ πνεῦμά ἐστι τὸ ζωοποιοῦν, ἡ σὰρξ οὐκ ὠφελεῖ οὐδέν· τὰ ῥήματα ἃ ἐγὼ λελάληκα ὑμῖν, πνεῦμά ἐστι καὶ ζωή ἐστιν.

64 Ἀλλ' εἰσὶν ἐξ ὑμῶν τινες οἱ οὐ πιστεύουσιν· ᾔδει γὰρ ἐξ ἀρχῆς ὁ Ἰησοῦς, τίνες εἰσὶν οἱ μὴ πιστεύοντες, καὶ τίς ἐστιν ὁ παραδώσων αὐτόν.

65 Καὶ ἔλεγε· Διὰ τοῦτο εἰρήκα ὑμῖν, ὅτι οὐδεὶς δύναται ἐλθεῖν πρός με, ἐὰν μὴ ᾖ δεδομένον αὐτῷ ἐκ τοῦ πατρός μου.

66 Ἐκ τούτου πολλοὶ ἀπῆλθον τῶν μαθητῶν αὐτοῦ εἰς τὰ ὀπίσω, καὶ οὐκέτι μετ' αὐτοῦ περιεπάτουν.

67 Εἶπεν οὖν ὁ Ἰησοῦς τοῖς δώδεκα· Μὴ καὶ ὑμεῖς θέλετε ὑπάγειν;

68 Ἀπεκρίθη οὖν αὐτῷ Σίμων Πέτρος· Κύριε, πρὸς τίνα ἀπελευσόμεθα; ῥήματα ζωῆς αἰωνίου ἔχεις.

69 Καὶ ἡμεῖς πεπιστεύκαμεν καὶ ἐγνώκαμεν ὅτι σὺ εἶ ὁ Χριστὸς, ὁ υἱὸς τοῦ Θεοῦ τοῦ ζῶντος.

70 Ἀπεκρίθη αὐτοῖς ὁ Ἰησοῦς· Οὐκ ἐγὼ ὑμᾶς τοὺς δώδεκα ἐξελεξάμην, καὶ ἐξ ὑμῶν εἷς διάβολός ἐστιν;

71 Ἔλεγε δὲ τὸν Ἰούδαν Σίμωνος Ἰσκαριώτου· οὗτος γὰρ ἤμελλεν αὐτὸν παραδιδόναι, εἷς ὢν ἐκ τῶν δώδεκα.

Κεφ. ζ. 7.

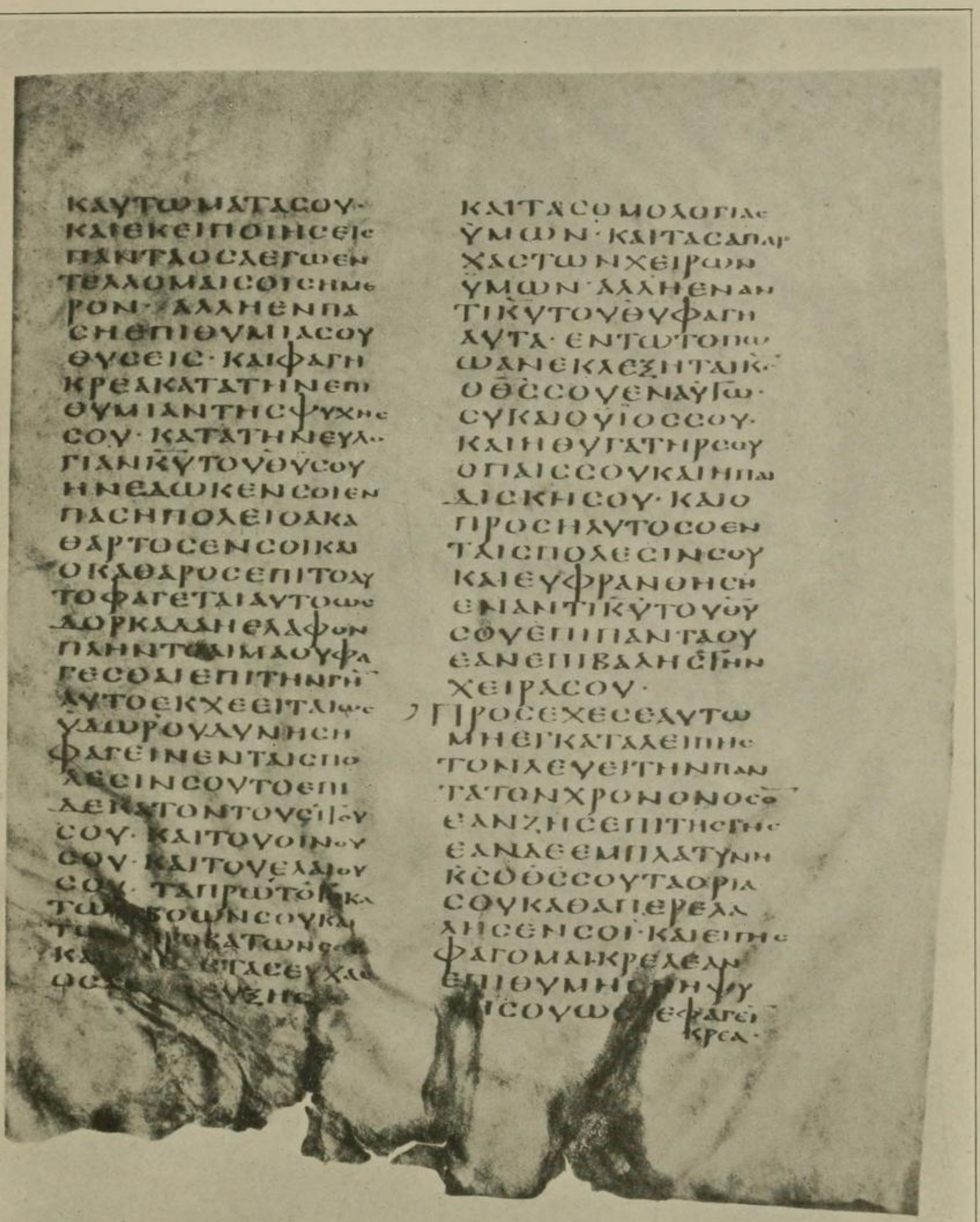
ΚΑΙ περιεπάτει ὁ Ἰησοῦς μετὰ ταῦτα ἐν τῇ Γαλιλαίᾳ· οὐ γὰρ ἤθελεν ἐν τῇ Ἰουδαίᾳ περιπατεῖν, ὅτι ἐζήτουν αὐτὸν οἱ Ἰουδαῖοι ἀποκτεῖναι.

2 Ἦν δὲ ἐγγὺς ἡ ἑορτὴ τῶν Ἰουδαίων ἡ Σκηνοπηγία.

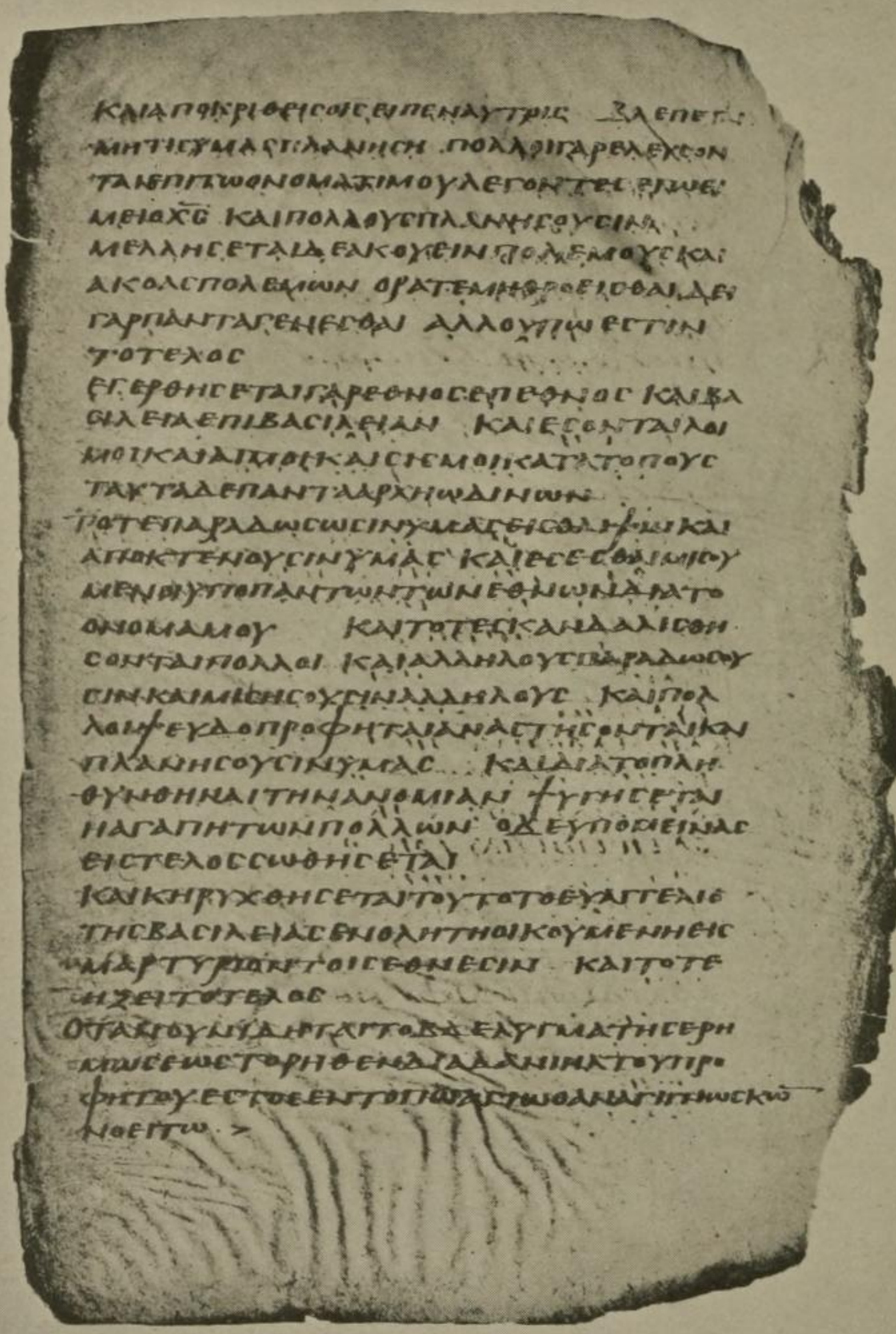
3 Εἶπον οὖν πρὸς αὐτὸν οἱ ἀδελφοὶ αὐτοῦ· Μετάβηθι ἐνθένδε, καὶ ὕπαγε εἰς τὴν Ἰουδαίαν, ἵνα καὶ οἱ μαθηταί σου θεωρήσωσι τὰ ἔργα σου ἃ ποιεῖς.

4 Οὐδεὶς γάρ ἐν κρυπτῷ τι

FIRST AMERICAN EDITION OF THE NEW TESTAMENT.



FACSIMILE OF THE WASHINGTON MANUSCRIPT OF DEUTERONOMY AND JOSHUA.



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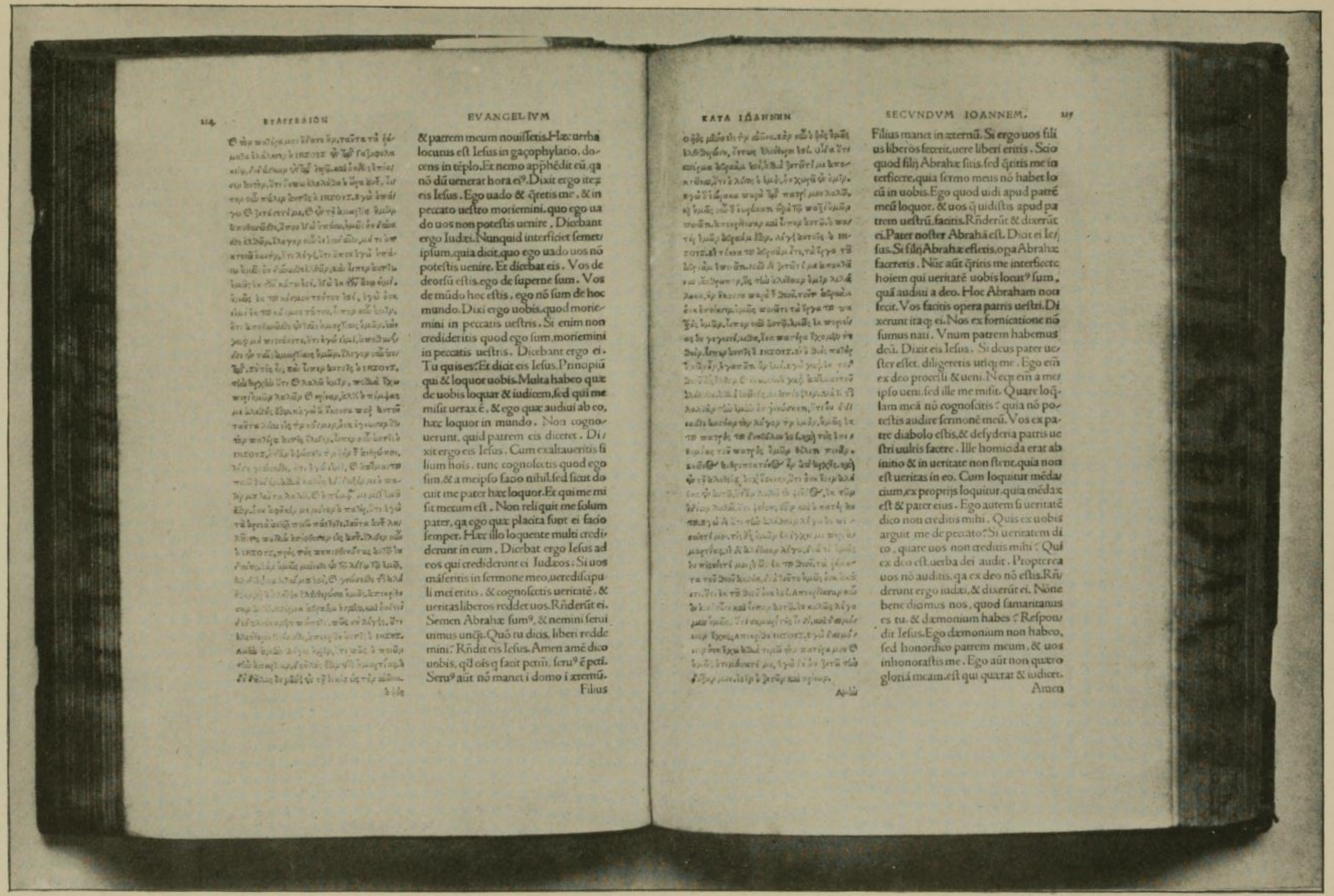


GREEK AND LATIN NEW TESTAMENT OF ERASMUS.

THE

HOLY BIBLE:

CONTAINING THE

OLD TESTAMENT

AND THE *NEW.*

Tranſlated into the

INDIAN LANGUAGE,

AND

Ordered to be Printed by the *Commiſſioners of the United Colonies* in *NEW-ENGLAND,*

At the Charge, and with the Conſent of the

CORPORATION IN *ENGLAND*

For the Propagation of the Goſpel amongſt the Indians *in* New-England.

CAMBRIDGE:

Printed by *Samuel Green* and *Marmaduke Johnſon.*

MDCLXIII.

TITLE PAGE OF ELIOT'S INDIAN BIBLE.

of that college. He became later rector of Lutterworth, in Leicestershire, and was the foremost leader of the party of reform. He died in 1384. About 1380 he undertook, with the assistance of some of his followers, the translation of the entire Bible into English from the Latin of the Vulgate. His translation was, after his death, revised by one of his adherents. The present copy is assumed to represent the first version prepared by Wycliffe himself, or at least under his supervision.

Tyndale's New Testament. Facsimile by F. Fry. William Tyndale was born between 1484 and 1486, in Gloucestershire. He was educated at Oxford and afterwards at Cambridge. He went to Hamburg, and later joined Luther at Württemberg, where he finished the translation of the New Testament into English. The first edition was issued in 1525. His English style was very good and was largely retained in the Authorized Version. His translation was condemned by the English Bishops and was ordered to be burned. Tyndale was strangled for heresy at Antwerp in 1536, and his body burned.

The Gothic and Anglo-Saxon Gospels. With the versions of Wycliffe and Tyndale. Arranged by Rev. Joseph Bosworth, London, 1865. The *Gothic* version was made in the fourth century by Bishop Ulfilas (born 318 A. D., died about 381). It is said to have been a complete version with the exception of the book of Kings. It was probably completed about 360 A. D. Only fragments are preserved in the so-called Codex Argenteus, or "Silver Book," in the library of the University of Upsala, Sweden. The *Anglo-Saxon* version was begun by King Alfred, who translated the Psalms in the ninth century. The translation now extant dates to the tenth century.

Coverdale's Bible. Reprint by Baxter, 1838. Miles Coverdale was born at Coverham, in the North Riding of Yorkshire in 1488. He died at Geneva in 1569. His Bible was issued October 4, 1535, being the first complete Bible printed in the English language. It was not translated from the original tongues, but was based on the Latin version and on Luther's Bible.

The Genevan Version. Folio edition printed at London, 1597. This translation was made by nonconformists, who took up their residence at Geneva. William Whittingham acted as editor, and his assistants were Thomas Cole, Christopher Goodman, Anthony Gilby, Thomas Sampson, and Bishop Coverdale. Some add John Knox, John Bodleigh, and John Pullain, and state that the translators consulted Calvin and Beza. The first edition was printed at Geneva in 1560.

The Douay Version of the Bible. The Douay version was undertaken in 1568 by the British Roman Catholic refugees at Douay, Flanders, where a British Catholic college was established under the direction of William Allen and Gregory Martin. In 1578 the college, on account of political conditions, was moved to Rheims, France, where the first edition of the translation of the New Testament was issued in 1582. In 1593 the college was reestablished at Douay, and here the translation of the Old Testament was published in 1609–10. The Douay version is a close translation from the Latin Vulgate. It exercised some influence on the King James version of 1611, and was in turn, in its later revised editions, influenced by it.

King James or Authorized Version. Folio edition, printed at London by Robert Barker, 1613. The preparation of a new English Bible was decided upon at a conference held at Hampton Court, January 16 and 18, 1604. In that year King James I issued a commission to fifty-four eminent divines to undertake the work. It was not begun, however, until 1607, when seven of the original number had died. The forty-seven survivors were divided into six committees, two sitting at Oxford, two at Cambridge, and two at Westminster. In 1610 their work was completed and then revised by a committee of six. Although universally known as the authorized version, no record, either ecclesiastical or civil, has ever been found of such authorization. The first edition was printed by Robert Barker in 1611.

Revised Version. Revision of the text of 1611 was early advocated by men like Bishop Ellicott, Archbishop French, and Dean Alford. Efforts were also made from time to time in the House of Commons to have a Royal Commission appointed. In 1870 the upper house of the Canterbury Convocation, on the motion of Bishop Wilberforce, took the subject in hand and instituted the proceedings which finally secured the accomplishment of the work. In 1871 an American committee of cooperation was organized. The New Testament was completed in 1881 and the Old Testament in 1885.

Parallel New Testament. Revised version and authorized version. (Seaside Library.) The revised version of the New Testament appeared in England May 17, 1881, and in America May 20, 1881. The first half of the parallel Testament appeared in New York May 21, and the second half May 23.

The American Standard Version. Edited by the American Revision Committee, A. D. 1901. The American Committee of Revisers, cooperating with the British Committee, was organized in 1871. It consisted of thirty members, divided into Old and New Testament groups, with Professor William Henry Green, of Prince-

ton Theological Seminary, and ex-President Woolsey, of Yale College, as chairmen. They began work in 1872 and held for some time one session a month in the Bible House in New York City. The agreement between the British and American Committees was, briefly, as follows: The British revisers were to take the suggestions of the American Committee under special consideration and print, in an appendix, such preferences of reading and rendering as they declined to adopt, while the American revisers were not to issue an edition of their own for fourteen years after the publication of the British revision. The British revision was published in 1885, and, in 1901, the restricted period having elapsed, the American Standard Revision was issued. It contained many variations from the British, substituting words in good American standing for those differently used in England. It also altered the punctuation and paragraphing of the British revision, and inserted at the top of each page brief indications of the contents of that page, which is of value for ready reference.

Jewish-English Version of the Old Testament. A new translation of the Old Testament prepared during the years 1908 to 1915 by a group of American Jewish scholars, with the aid of previous versions and with constant consultation of Jewish authorities. It aims to combine the spirit of Jewish tradition with the results of Biblical scholarship, ancient, medieval, and modern. Published by the Jewish Publication Society of America, Philadelphia, Pa.

TRANSLATIONS OF THE BIBLE IN FOREIGN LANGUAGES.

Luther's Bible. German translation, made by Martin Luther. Edition of 1554. The New Testament appeared in 1522 and the Old Testament, in parts, between 1523 and 1532. The complete Bible appeared in 1534. Previous to Luther's version there were in use at least 10 distinct German versions, literal translations of the Latin Bible. Luther worked from the original tongues, and yet succeeded in giving the Bible a real German dress and a style that would appeal to German readers. Luther's translation was of prime importance in bringing about the Reformation, and is also the foundation of the German literary dialect.

German Bible. Containing the Old and the New Testament and the Apocrypha of the Old Testament in Luther's translation, with numerous woodcut illustrations. The translation is preceded by an index and explanations of the proper names occurring in the Bible, a synopsis of the principal doctrines, and an historical and chronological list. At the head of each book and chapter is a summary of their respective contents. Bound in vellum, richly tooled, with ornamental brass clasps. Printed in Frankfort on the Main in 1704.

The Christopher Sauer Bible. The Bible printed by Christopher Sauer in Germantown, Pa., in 1743 was the first edition of the Scriptures published in America in a European tongue. Its issue was announced in Bradford's "Weekly Mercury" for April 1, 1742, and in Franklin's "Pennsylvania Gazette" for April 31, 1741. This German edition of the Bible follows, with a few exceptions, the version of Luther. It contains the Old and the New Testament and the Apocrypha, including the third and fourth Ezra and the third Maccabees. Each chapter is preceded by a summary of its contents, and references to parallel passages are noted.

Spanish Old Testament. Amsterdam, Holland, 1661 (5421). The first edition of this translation was printed in the middle of the sixteenth century. It bears the title: "The Bible in the Spanish language, translated word for word from the Hebrew, examined by the Inquisition, with the privilegium of the Duke of Ferrara." It is therefore generally known as the Ferrara Bible. The copies of this translation are divided into two classes—one appropriate for the use of the Jews, the other suited to the purposes of the Christians. The translation is extremely literal, and the translator has indicated with an asterisk the words which are in Hebrew equivocal or capable of different meanings.

Dutch Bible. Printed at Dort (Dordrecht), Holland, in 1741, with illustrations and marginal comments. This version of the Bible was ordered by the Synod of Dort (1618–19), which appointed three theologians for the translation of the Old Testament and three for that of the New Testament, besides two revisers from each province. The work of translation was finished in 1635.

Eliot's Indian Bible. Facsimile reprint. Washington, D. C., 1890. John Eliot, "the apostle of the Indians," was born in England in 1604 and received his education at Cambridge. In 1631 he removed to America and settled at Roxbury, Massachusetts, as minister, where he remained until his death in 1690. He became interested in the conversion of the Indians of New England, whom he believed to be the descendants of the lost tribes of Israel, and determined to give them the Scriptures in their tribal tongue, which was the Natick dialect. He completed the translation of the New Testament in 1661 and that of the entire Bible in 1663. It was printed in Cambridge, Massachusetts, by Samuel Green and Marmaduke Johnson, "ordered to be printed by the Commissioners of the United Colonies in New England, At the Charge and with the Consent of the Corporation in England for the Propagation of the Gospel amongst the Indians in New England." Eliot's Indian Bible was the first ever printed in America, and the entire translation is stated to have been written with one pen. Eliot also published an Indian

grammar and a number of other works, mostly relating to his missionary labors. The Natick dialect, in which the translation of the Bible was made, is now extinct (pl. 40).

Fiji Gospels. Printed at Vuda, Fiji Islands, 1847. The Fiji group of islands is located in the South Pacific Ocean. It comprises over 200 islands, of which about 80 are inhabited. Since 1874 the Fiji Islands have been a British dependency; they have a population of about 125,000. Christianity was introduced in the islands by Wesleyan missionaries in 1835.

Armenian Bible. The first translation of the Bible into the Armenian language was made from the Syriac version in the fifth century by Mesrob (354–441), the reputed inventor of the Armenian alphabet and founder of Armenian literature, and the patriarch Sahak (Isaac). The present translation was printed in New York in 1870. Bound in black Morocco, richly gold tooled, with gilt edges.

The Bible in the Turkish Language. Printed in Constantinople in 1878. Bound in black roan, richly tooled.

The New testament in the Korean Language. This is the first issue of the Scriptures in the Korean tongue. Printed in Seoul, Korea, in 1900.

BIBLES OF HISTORICAL INTEREST.

Biblia Pauperum (Bible of the Poor). A series of cuts (from 34 to 50) illustrating the leading events in the history of Christ, each with representations of supposed parallels from the Old Testament, and accompanied with explanatory texts. Thus, on the page exhibited in the Museum, in the center is the transfiguration of Christ (Matthew xvii, 1–9; Mark ix, 2–10; Luke ix, 28–36); to the left, Abraham receiving the three angels (Genesis xviii); to the right; Nebuchadnezzar and Hananiah, Mishael, and Azariah (Shadrach, Meshach, and Abed-nego) in the furnace (Daniel iii). Above are the busts of David and Isaiah; underneath, of Malachi and Habakkuk; and below, the explanatory text. Such Bibles were in vogue during the Middle Ages, until, through the invention of printing, the complete Scriptures were made accessible to the people. This copy is a facsimile of the edition of Hans Sporer, 1471, at Nuremberg, Germany.

Cromwell's Soldier's Pocket Bible. Facsimile reprint. Compiled by Edmund Calamy, and issued for the use of the Army of the Commonwealth, London, 1643. It has frequently been stated that every soldier in Cromwell's army was provided with a pocket Bible, and it was supposed that an especially small copy was used. In 1854 the late Mr. George Livermore of Cambridgeport, Mass., discovered that the Bible which Cromwell's soldiers carried was not

the whole Bible, but the soldier's pocket Bible, which was generally buttoned between the coat and the waistcoat next to the heart. It consists of a number of quotations from the Geneva version (all but two from the Old Testament) which were especially applicable to war times. Only two copies of the original of this work are known to exist—one in America and the other in the British Museum. The work was reissued in 1693 under the title "The Christian Soldier's Penny Bible." The only copy extant, so far as known, is in the British Museum.

Bishop Asbury's New Testament. With hundreds of the texts for his sermons marked in his own handwriting. Francis Asbury (born in Staffordshire, 1745; died in Virginia, 1816) was the first Bishop of the Methodist Church ordained in America. He was sent as a missionary by John Wesley in 1771, and in person organized the work of his denomination in the entire eastern portion of the United States, performed the first ordination in the Mississippi valley, and in 1784 founded the first Methodist college.

The Life and Morals of Jesus of Nazareth. Extracted textually from the Gospels in Greek, Latin, French, and English, by Thomas Jefferson, being the so-called Jefferson Bible. A compilation made by Jefferson about 1819, consisting of passages from the Gospels, cut out and pasted in a volume according to a scheme of his own. A concordance of the texts is given in the front and the sources of the verses in the margins; the section of the Roman law under which Christ was tried is also cited. All of these annotations, as well as the title-page and concordance, are in Jefferson's own handwriting. Two maps, one of Palestine and another of the ancient world, are pasted in the front. Jefferson long had the preparation of this book in mind. On January 29, 1804, he wrote from Washington to Doctor Priestley: "I had sent to Philadelphia to get two Testaments (Greek) of the same edition, and two English, with a design to cut out the morsels of morality, and paste them on the leaves of a book." Nearly 10 years later (October 13, 1813), in writing to John Adams, he stated that he had for his own use cut up the Gospels "verse by verse out of the printed book, arranging the matter which is evidently his (Christ's)." In the same letter he describes the book as "the most sublime and benevolent code of morals which has ever been offered to man." It is said that it was Jefferson's original idea to have this compilation translated for use among the Indians (pls. 41 and 42).

The Two Copies of the English New Testament from which Jefferson Made the Clippings for the English Version of the "Life and Morals of Jesus of Nazareth." Printed in Philadelphia, 1804. Jefferson refers to these New Testaments in a letter of January 29, 1804,

addressed from Washington to Doctor Priestley: "I had sent to Philadelphia to get two Testaments (Greek) of the same edition, and two English, with a design to cut out the morsels of morality and paste them on the leaves of a book."

Jewish Soldier's Pocket Bible. Published by the Jewish Publication Society of America, Philadelphia, Pa., 1918. This volume contains readings from the Holy Scriptures for Jewish soldiers and sailors in the service of the United States, consisting mainly of passages relating to God's creation and maintenance of the world, His providence, and His guidance of the destinies of nations. Bound in khaki.

Hieroglyphic Bible. Published by Joseph Avery, Plymouth; printed by George Clark & Co., Charlestown, 1820. A number of Hieroglyphic Bibles have been printed in America, the first being that of Isaiah Thomas at Worcester, Mass., in 1788. Words in each verse are represented by pictures, the whole being designed "to familiarize tender age, in a pleasing and diverting manner, with early ideas of the Holy Scriptures." (Pl. 43.)

Above, on the wall of the cases, is exhibited a collection of musical instruments mentioned in the Bible. Scarcely any authentic information is preserved concerning the shape or the manner of playing on the musical instruments named in the Bible. The only ancient representation of any Hebrew musical instrument extant is that of the *haçoçera*, or trumpet, on the Arch of Titus at Rome. There is no doubt but that the *shofar* or ram's horn, which is still used in the synagogue, has conserved its antique form, but it may be assumed that the musical instruments of the Hebrews resembled those of the Assyrians and Egyptians, some of which are sculptured on the monuments, and that the instruments still used in Palestine, Syria, and Egypt, differ but little, if at all, from those employed in ancient times.

MUSIC AND MUSICAL INSTRUMENTS IN THE BIBLE.

To music a high position is assigned in the Bible. Its invention is recorded in the opening chapters of the Scriptures (Genesis iv, 21), and in the Revelation of St. John (v. 9; xv, 2 ff) it serves to express the consummation of beatitude. From the earliest times music was used as expressive of the joys and sorrows of daily life in Israel. It was the pastime of the shepherd (I Sam., xvi, 18); it formed a principal attraction of the social gatherings of youth at the city gates (Lamentations, v, 14); it accompanied the celebration of the festivals of the harvest and vintage (Isaiah xvi, 10; Judges xxi, 21); the victors in battle were received on their return with "singing, dancing, and timbrels" (Exodus xv, 21; Judges xi,

34; I Sam., xviii, 6); it contributed to the pleasure and festivity of the banquet (Isaiah v, 12; Amos vi, 5; II Sam., xix, 35). It was the indispensable accompaniment of every festal occasion (Genesis xxxi, 27; Luke, xv, 25). Above all, music constituted an important feature of religious worship.

In earlier time only two instruments—the trumpet (*haçoçera*) and the ram's horn (*shofar*)—are mentioned as having been used by divine ordinance (Numbers x, 2 ff; Levit., xxiii, 24; xxv, 9). An extensive use of music, both vocal and instrumental, in religious service was inaugurated under David. Under his direction 4,000 Levites under 288 leaders were organized into a chorus and orchestra, who in 24 divisions provided for the music of the sanctuary (I Chron., xxiii, 5; xxv, 7). Solomon had lutes and harps of sandalwood prepared for the singers (I Kings, x, 12). Among the later kings, Hezekiah and Josiah are especially mentioned as having given much attention to the musical services of the Temple (II Chron., xxix, 25; xxxv, 15). Music at service was not altogether neglected, even during the depressed condition of the people subsequent to the captivity (Nehem., xi, 17, 22; xii, 28). And from Hebrew post-Biblical writings it is known that it formed a prominent feature of Jewish worship in the time of Christ.

The musical instruments mentioned in the Bible were, like those of antiquity in general, of three kinds:

1. Wind instruments.

2. Stringed instruments, which were always played with the fingers or with the plectrum, and not, like the modern violin, with a bow.

3. Instruments of percussion, which were beaten or shaken to produce sound.

The instruments exhibited are as follows:

I.—INSTRUMENTS OF PERCUSSION.

(1) Round tabret (Hebrew, *tof*, Arabic, *duff*, which agrees with the Hebrew and is the parent of the Spanish *aduffa*). Beirut, Syria (where it is called *rikk*). The tabret or timbrel was and is still one of the most common musical instruments in the Orient. It is often mentioned throughout the earlier history of Israel (Genesis xxxi, 27; Judges xi, 34, etc.). It was used chiefly by women, especially in dances and public processions (Exodus xv, 20; I Samuel xviii, 6), but appears to have had no place in the religious services of the Tabernacle or Temple. According to representations on Egyptian monuments, the timbrel was either round or four-sided in shape.

(2) Four-sided tabret. Morocco, Africa.

(3) Kettledrum (Arabic, *naggarah*). Cairo, Egypt. The kettledrum is used in military bands, orchestras, and in short solo pas-

sages. It is also employed by the Dervishes to produce excitement in their devotions. The kettledrum is sounded with blows from a soft-headed, elastic mallet, stick, or a leather thong.

(4) Cymbals (Hebrew, *meçiltayim*, *çilçelim*). Cairo, Egypt, Cymbals are frequently enumerated among the musical instruments employed in the Temple (I Chronicles xv, 16, 19, 28; xvi, 5, 42; xxv, 6; II Chronicles v, 13; xxix, 25, etc.). The cymbals were of two kinds. One consisted of two large plates of metal with wide flat rims and were played by being strapped to the hands and clashed together. The others were conical, or cup-like, with thin edges, and were played by bringing down the one sharply on the other while held stationary, eliciting a high-pitched note. The Hebrew names, which denote a jingling sound, can also be applied to:

(5) Castanets (Hebrew, *çilçelim;* Syrian, *faggeishah*). Beirut, Syria (pl. 44).

II.—WIND INSTRUMENTS.

(1) Ram's horn (Hebrew, *shofar*). The shofar, in the English versions usually inaccurately translated trumpet, or even more inaccurately, cornet, is first mentioned in the Bible in connection with the giving of the law on Sinai (Exodus xix, 16; xx, 18). Its use is ordered for the announcement of the new moon and solemn feasts (Numbers x, 10, compare Psalms lxxxi, 4), and the proclamation of the year of release (Leviticus xxv, 9). New Year's Day (the first of the seventh month, or *Tishri*) is called a "memorial day of blowing" (Leviticus xxiii, 24; Numbers xxix, 1). The shofar also served in religious processions (II Samuel vi, 15; I Chronicles xv, 28), and along with other musical instruments as an accompaniment to the song of praise (Psalms xcviii, 6; cl, 3, compare Psalms xlvii, 6). But the most ancient and most frequent use of the shofar was for military purposes, to give the signal for the rallying of the people and for attacking and pursuing the enemy (Numbers x, 2 ff; Joshua vi, 4; Judges iii, 27; vii, 18, 20; I Samuel xiii, 3). The shofar is not only the sole instrument of those mentioned in the Bible which is still employed by the Jews in their religious services of the synagogue during the penitential month of Elul (July-August); on New Year's Day or *Rosh ha-Shanah*, the first of *Tishri* (August-September); and on Atonement Day, or *Yom Kippur*, the tenth of *Tishri;* but is also, according to authorities on musical instruments, the oldest form of wind instrument known to be retained in use. It is usually made of a ram's horn, though the goat's horn is also employed (pl. 45, fig. 2).

(2) Trumpet (Hebrew, *haçoçerah*). Morocco, Africa (where it is called *n'feer*). The trumpet was the first instrument expressly ordered in the Pentateuch. At first there were but two, made of

silver (Numbers x, 1-10). Solomon increased their number to one hundred and twenty (II Chronicles v, 12). It was almost exclusively a priestly instrument. Its primary use was for giving signals for the people to assemble, but was appropriated to religious services (II Kings xii, 14; II Chronicles xiii, 12, 14). According to the representation on the Arch of Titus, the trumpet was narrow and straight and had at the bottom a bell-like protuberance (pl. 46).

(3) Flute or pipe (Hebrew, *halil*). Damascus, Syria (where it is called *shubab*). The pipe or flute was a favorite instrument of the ancients. In its simplest form it was a reed, or variety of wood in the shape of a reed, about 18 inches in length, bored throughout evenly and pierced with holes in the sides for notes. Sometimes two were bound together. The flute was not used in religious services, but it is mentioned among others in the Bible as employed on festival occasions, as also on those of mourning (I Samuel x, 5; I Kings i, 40; Isaiah xxx, 29; Matthew ix, 23; xi, 17; Revelation xviii, 22) (pl. 45, fig. 4).

(4) Double flute. Bethlehem, Palestine. This instrument is assumed by some to represent the *sumponiah* (symphony) of Daniel iii, 5, 10, 15. The English versions give dulcimer, though the margin of the Revised Version gives bagpipe. *Sumponiah* is supposed by some to be a translation of the Hebrew *'ugab*, but the latter possibly represents pan pipes (pl. 45, fig. 3).

(5) Reeds or pan pipes. Cairo, Egypt. The reeds, now called in Syria *Mijwiz* or *Naigha*, are enumerated in Daniel iii, 5, 7, 10, 15, under the name of *mashrokitha* (English version, flute), among the instruments of the Babylonians. Some consider them the Hebrew *'ugab* (Genesis iv, 21). They were known to the Greeks under the name of *syrinx* (Latin *fistula*) (pl. 45, fig. 3).

(6) Bagpipe. Tunis, Africa, where it is called *zaida*. Supposed by some to represent the Hebrew *'ugab*, one of the first musical instruments mentioned in the Bible (Genesis iv, 21); others consider *'ugab* to mean a sort of a syrinx. The Authorized Version renders it by "organ," the Revised by "pipe." The bagpipe originated in the East, was known to the Greeks and Romans, was popular throughout the middle ages, and is still used in many eastern countries, and among the country people of Poland, Italy, the south of France, and in Scotland and Ireland (pl. 47).

III. STRINGED INSTRUMENTS.

(Not represented by specimens.)

The stringed instruments mentioned in the Bible are:

(1) Harp. The Hebrew word *kinnor* which is adopted for harp, occurs in the opening chapters of the Bible (Genesis iv, 21). It

was the especial instrument of David (I Samuel xvi, 23). Later it was one of the important instruments of the temple orchestra (I Chronciles xv, 16; II Chronicles xxix, 25). The exiles hung their harps on the willows by the waters of Babylon (Psalms cxxxvii, 2). To judge from representations on Egyptian monuments and Jewish coins of the second century B. C., the *kinnor* resembled the Greek *kithara* more than the modern trigonal harp, and as a matter of fact the Hebrew *kinnor* is usually rendered *kithara* by the Septuagint, the oldest Greek version of the Old Testament. Jewish coins show lyres with three, five, and six strings. A similar instrument was also in use among the Assyrians. In its smaller form it could easily be carried about in processions, as the representations on the monuments, both Egyptian and Assyrian, show.

(2) Psaltery (Hebrew, *nebel*). The psaltery, or lute, is often mentioned in the Bible together with the harp, though it seems to have been less used than the latter. It is likely that the psaltery resembled what is now known in the East as the tamboora, or guitar, an instrument which also figures largely on the Egyptian and Assyrian monuments. In its present shape the psaltery is thus described: "In its most complete and perfect form, this instrument is 3 feet 9 inches long, has ten strings of fine wire and 47 stops. It is played with a plectrum, and is often inlaid with mother-of-pearl and valuable woods. It is oftener, however, of smaller size and less costly materials." (Van Lennep, Bible Lands, p. 612.) The church father Jerome states that the *nebel*, whose name became *nabla* and *nablium* in Greek and Latin, had the form of the Greek letter Δ, that is, was a triangular pointed harp.

On the bottom of one case is a collection of Turkish and Persian glazed and enameled tiles.

37. Contains a collection of pottery from various localities.

38. In the alcove, Round Altar of the Twelve Gods. Cast from an original of marble in the Museum of the Capitol, Rome. The twelve gods, with their attributes, represented in relief, are, in order from right to left, as follows: 1. Zeus, with scepter and thunderbolt; 2. Hera; 3. Athene, with lance, helmet, and aegis; 4. Heracles, with lion's skin, club, and bow; 5. Apollo, with bow and quiver; 6. Artemis, with bow; 7. Ares, with shield and helmet; 8. Perhaps Aphrodite; 9. Probably Demeter, with scepter and torch; 10. Hermes, with cap, wand, wings, and ram; 11. Poseidon, with trident; 12. Hephaestus (Vulcan), with hammer.

39–43. The last five wall cases are given over to Greco-Roman sculptures.

Above, on the wall of the cases, are votive reliefs, sepulchral stelae, and reduced casts in frames of the Pergamon altar reliefs.

These reliefs belong to the altar of Zeus Soter (the Savior), which was probably erected by King Eumenes II (197–159 B. C.) on the Acropolis of Pergamon, Asia Minor. The altar is considered one of the most magnificent and most characteristic monuments of the Hellenistic age. It was raised upon a platform about 16 feet high and nearly square, measuring about 123 feet 7 inches by 113 feet 6 inches. One side of the platform was pierced by a broad staircase leading up to the altar, which stood in the center, surrounded, except at the head of the staircase, by an Ionic colonade. The platform was encircled by a band of sculptures in high relief, about 7 feet 6 inches high and probably about 400 feet long, representing the battle between the gods and the titans, or giants, the serpent-legged sons of *Gaia* (Earth), symbolizing the struggle between order and the unorganized natural forces, which were at work within the bosom of the earth at the creation of the world. The ruins of the altar and its decorations of marble were discovered and excavated by the Germans during the years 1878–1880, under the superintendence of the architect, Carl Humann. The fragments of over 350 feet of the relief, which have been brought to light in these excavations, are now in the Museum of Berlin. The following seven groups from the battle are represented:

(1) Zeus group. Zeus battling with three giants.

(2) Athene group. The warlike daughter of Zeus is assisted in her fight with a young winged giant by Erichthonios, her foster child, and Nike (Victory). Between them Gaia emerges from the ground raising her hand in supplication for mercy for her sons.

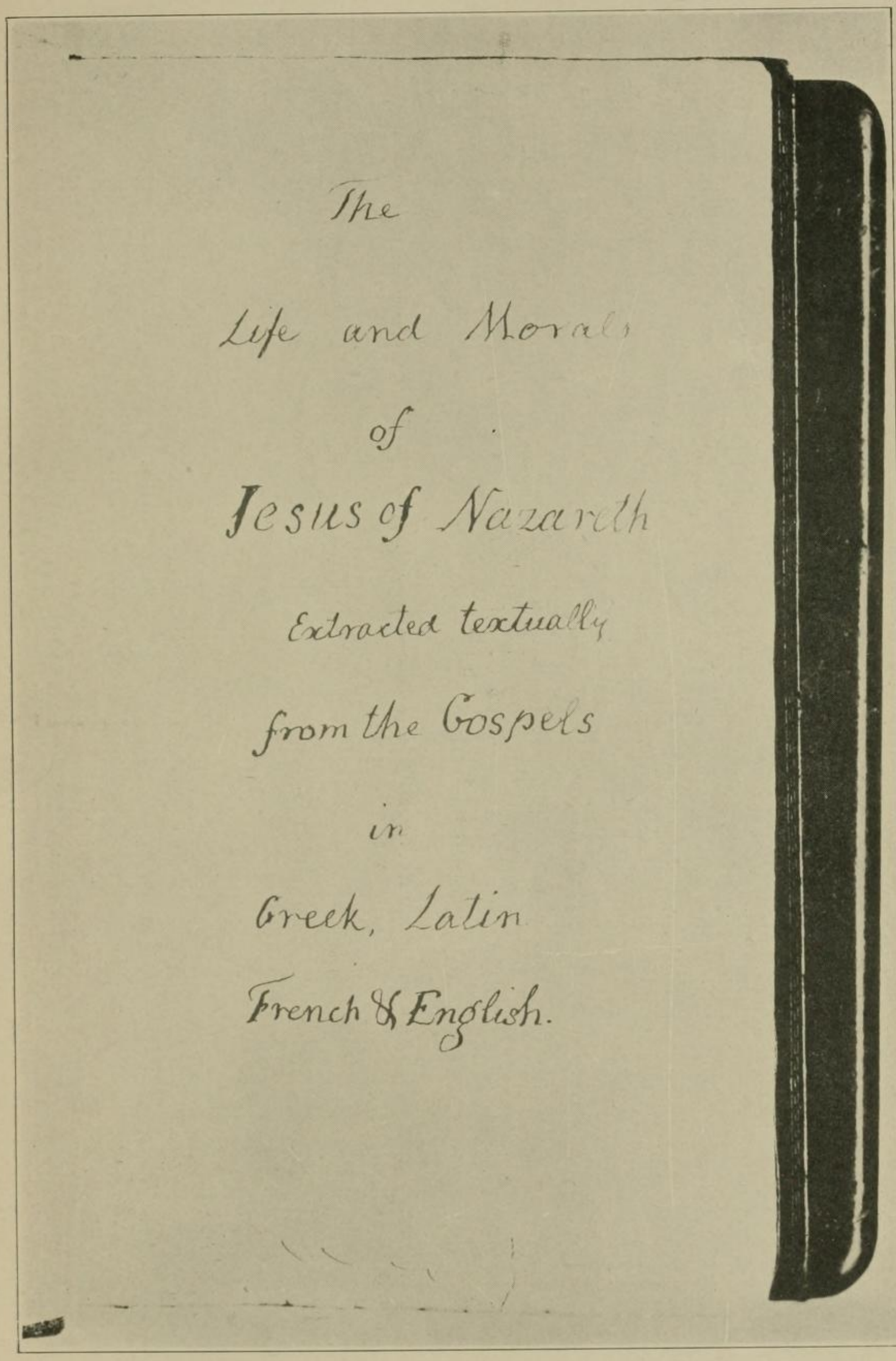
(3) Demeter and Persephone group with torch and sword and assisted by a dog fighting three giants.

(4) Hecate and Artemis group. Hecate, the goddess of night and the underworld, is armed with shield, sword, and flaming torch, while Artemis (Diana), the goddess of the moon and the chase, is equipped with the bow. Both are assisted by dogs.

(5) Helios group. Helios, the sun god, is leading his four-horse chariot over the battle field. In front rides Eos (Aurora, dawn), sword in hand, on horseback, while behind is another of the attendants (Hours) on Helios, in flowing garment with torch.

(6) The snake vase group. A goddess seizes the shield of a giant with her left hand while her right hand holds a vase encircled by snakes, which she is about to hurl at him. One snake is already coiling over him. At the left another winged goddess is about to drive a sword into the neck of a snake-legged giant, whom she holds by the hair of his head.

(7) Cybele group. Cybele, the "Great Mother of the Gods," enters the contest riding on her lion. At her side hovers the eagle of Zeus. She is in the act of drawing an arrow from her quiver.



TITLE PAGE OF JEFFERSON'S NEW TESTAMENT.

5. Mais ils insistoient encore plus fortement, en disant : Il soulève le peuple, enseignant par toute la Judée, ayant commencé depuis la Galilée jusqu'ici.

13. Alors Pilate lui dit : N'entends-tu pas combien de choses ils déposent contre toi?

6. Quand Pilate entendit parler de la Galilée, il demanda si Jésus étoit Galiléen.

7. Ayant appris qu'il étoit de la juridiction d'Hérode, il le renvoya à Hérode, qui étoit aussi alors à Jérusalem.

8. Quand Hérode vit Jésus, il en eut une grande joie; car il y avoit long-tems qu'il souhaitoit de le voir, parce qu'il avoit ouï-dire beaucoup de choses de lui; et il espéroit qu'il lui verroit faire quelque miracle.

9. Il lui fit donc plusieurs questions, mais Jésus-Christ ne lui répondit rien,

10. Et les principaux Sacrificateurs et les Scribes étoient-là, qui l'accusoient avec la plus grande véhémence.

11. Mais Hérode, avec les gens de la garde, le traita avec mépris; et pour se moquer de lui, il le fit vêtir d'un habit éclatant, et le renvoya à Pilate.

12. En ce même jour, Pilate et Hérode devinrent amis, car auparavant ils étoient ennemis.

13. Alors Pilate ayant assemblé les principaux Sacrificateurs, et les Magistrats, et le peuple, leur dit :

14. Vous m'avez présenté cet homme comme soulevant le peuple; et cependant l'ayant interrogé en votre présence, je ne l'ai trouvé coupable d'aucun des crimes dont vous l'accusez;

15. Ni Hérode non plus; car je vous ai renvoyés à lui, *et* on ne lui a rien fait *qui marque qu'il soit* digne de mort.

16. Ainsi, après l'avoir fait châtier, je le relâcherai.

5 And they were the more fierce, saying, He stirreth up the people, teaching throughout all Jewry, beginning from Galilee to this place.

13 Then said Pilate unto him, Hearest thou not how many things they witness against thee?

6 When Pilate heard of Galilee, he asked whether the man were a Galilean.

7 And as soon as he knew that he belonged unto Herod's jurisdiction, he sent him to Herod, who himself also was at Jerusalem at that time.

8 And when Herod saw Jesus, he was exceeding glad: for he was desirous to see him of a long *season*, because he had heard many things of him; and he hoped to have seen some miracle done by him.

9 Then he questioned with him in many words; but he answered him nothing.

10 And the chief priests and scribes stood, and vehemently accused him.

11 And Herod, with his men of war, set him at nought, and mocked *him*, and arrayed him in a gorgeous robe, and sent him again to Pilate.

12 And the same day Pilate and Herod were made friends together: for before they were at enmity between themselves.

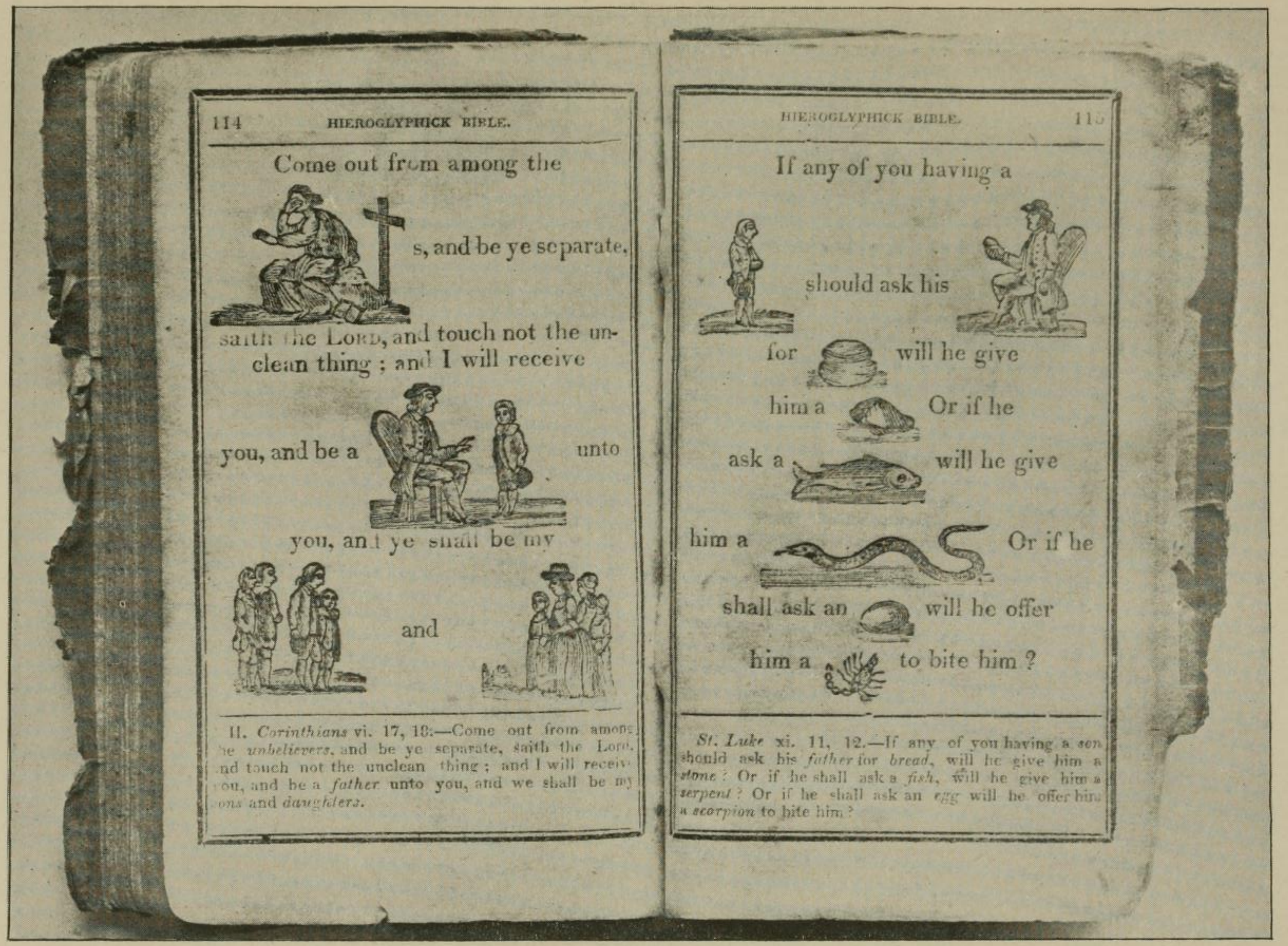
13 And Pilate, when he had called together the chief priests, and the rulers, and the people,

14 Said unto them, Ye have brought this man unto me, as one that perverteth the people: and, behold, I, having examined *him* before you, have found no fault in this man, touching those things whereof ye accuse him:

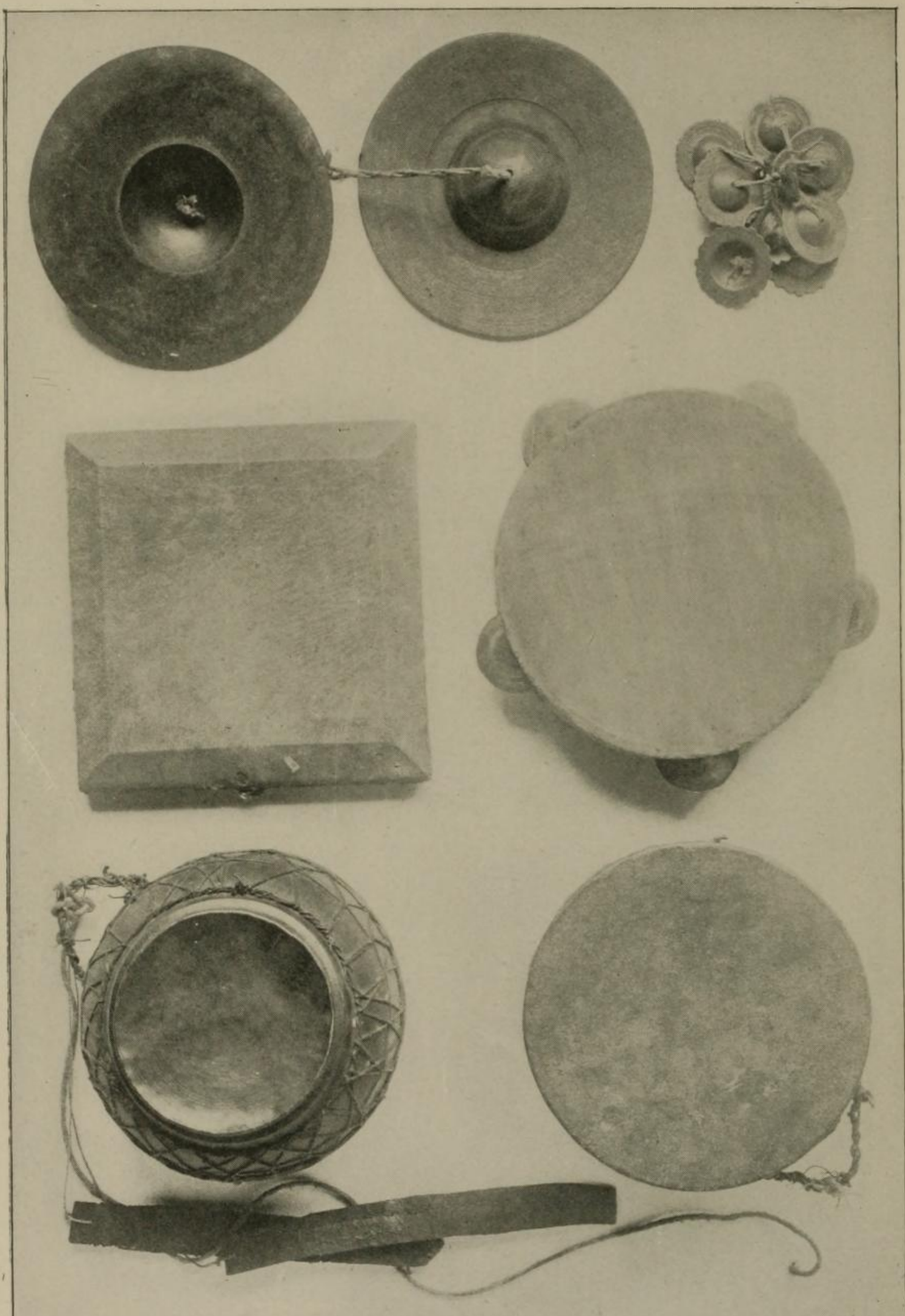
15 No, nor yet Herod: for I sent you to him; and, lo, nothing worthy of death is done unto him:

16 I will, therefore, chastise him, and release *him*.

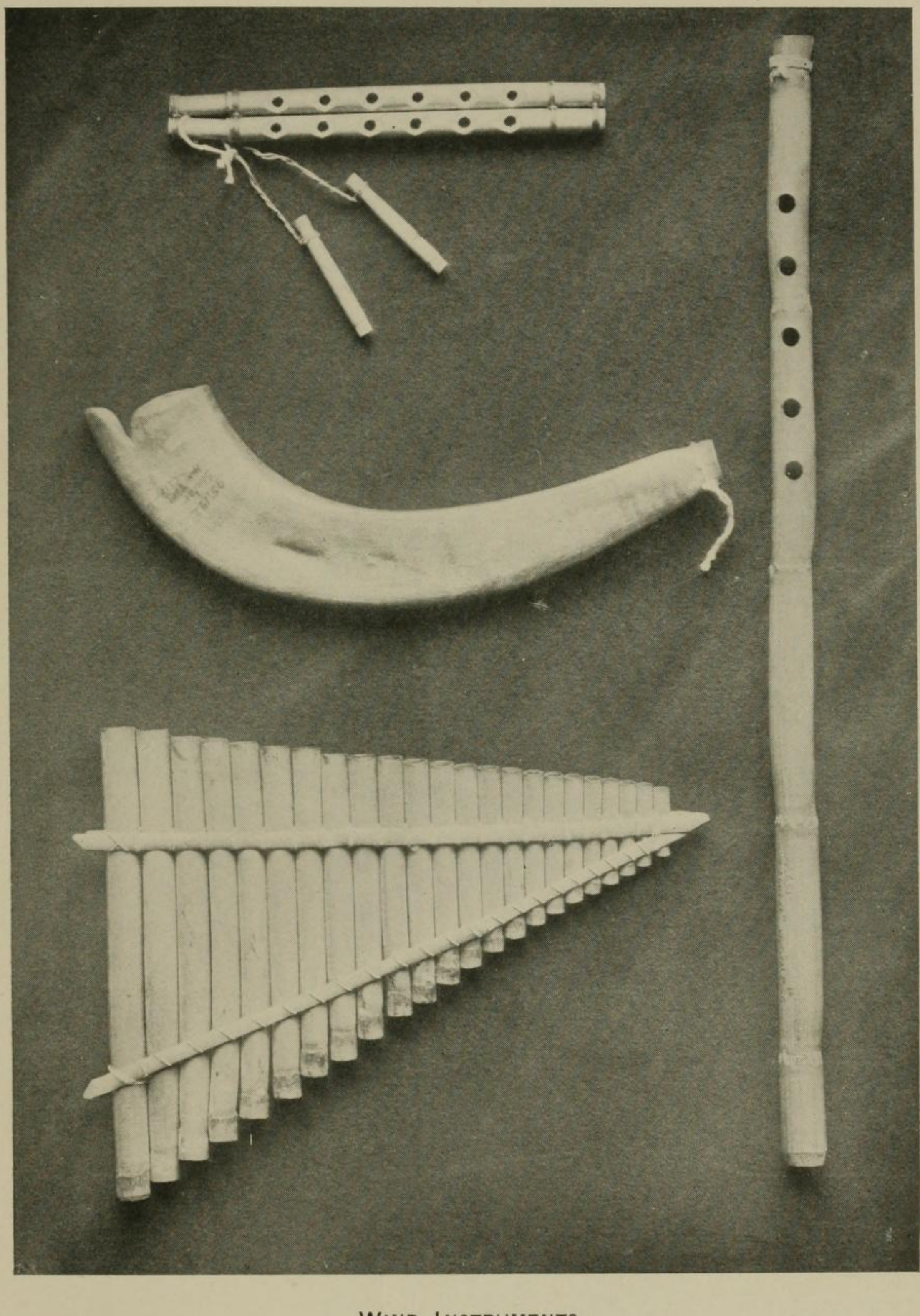
Page from Jefferson's New Testament.



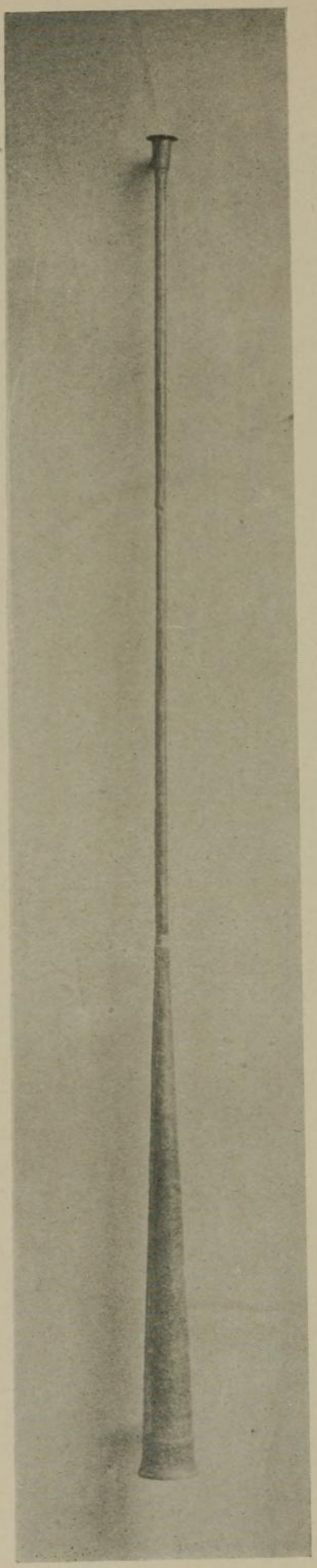
HIEROGLYPHIC BIBLE.



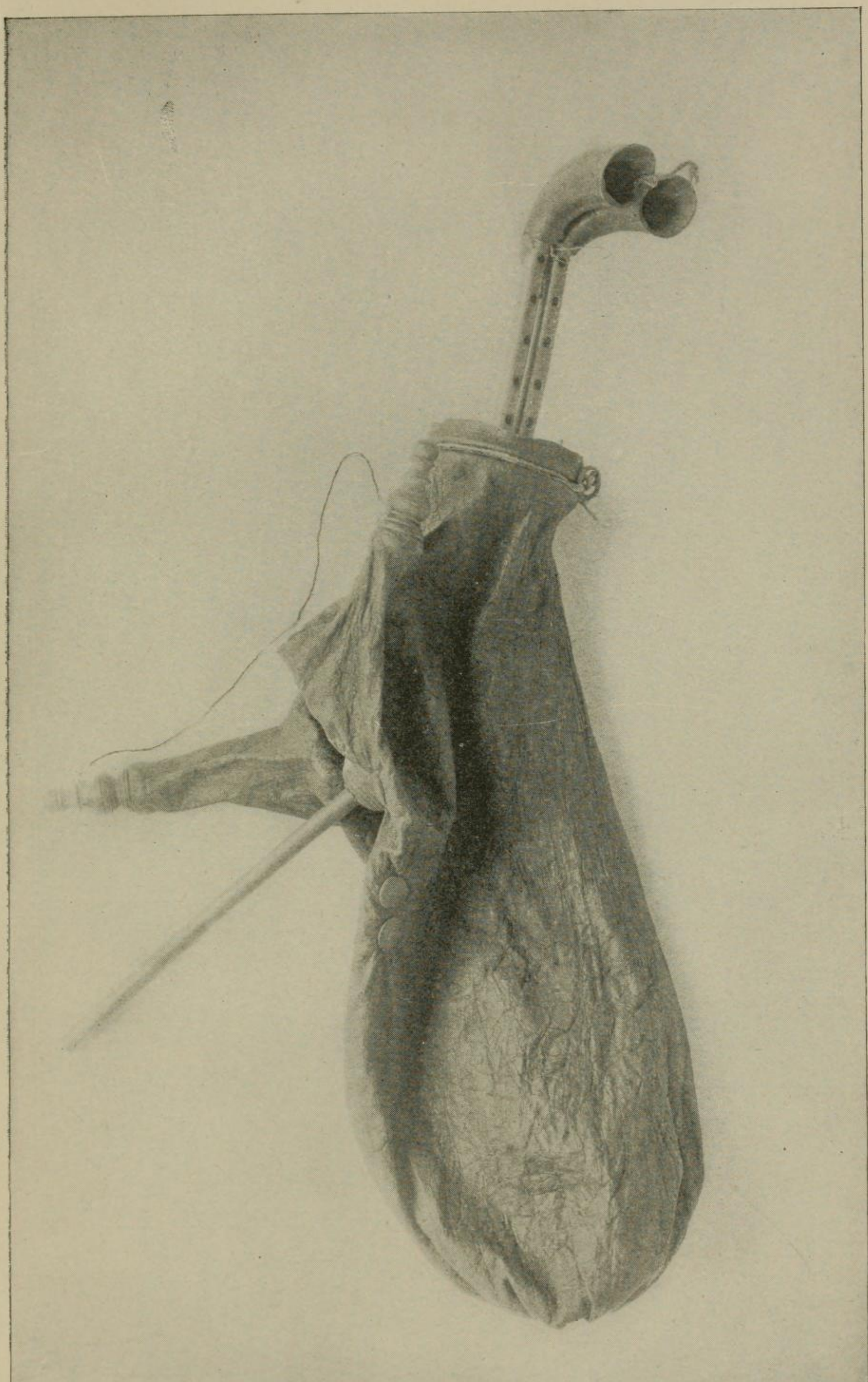
MUSICAL INSTRUMENTS OF PERCUSSION



WIND INSTRUMENTS.

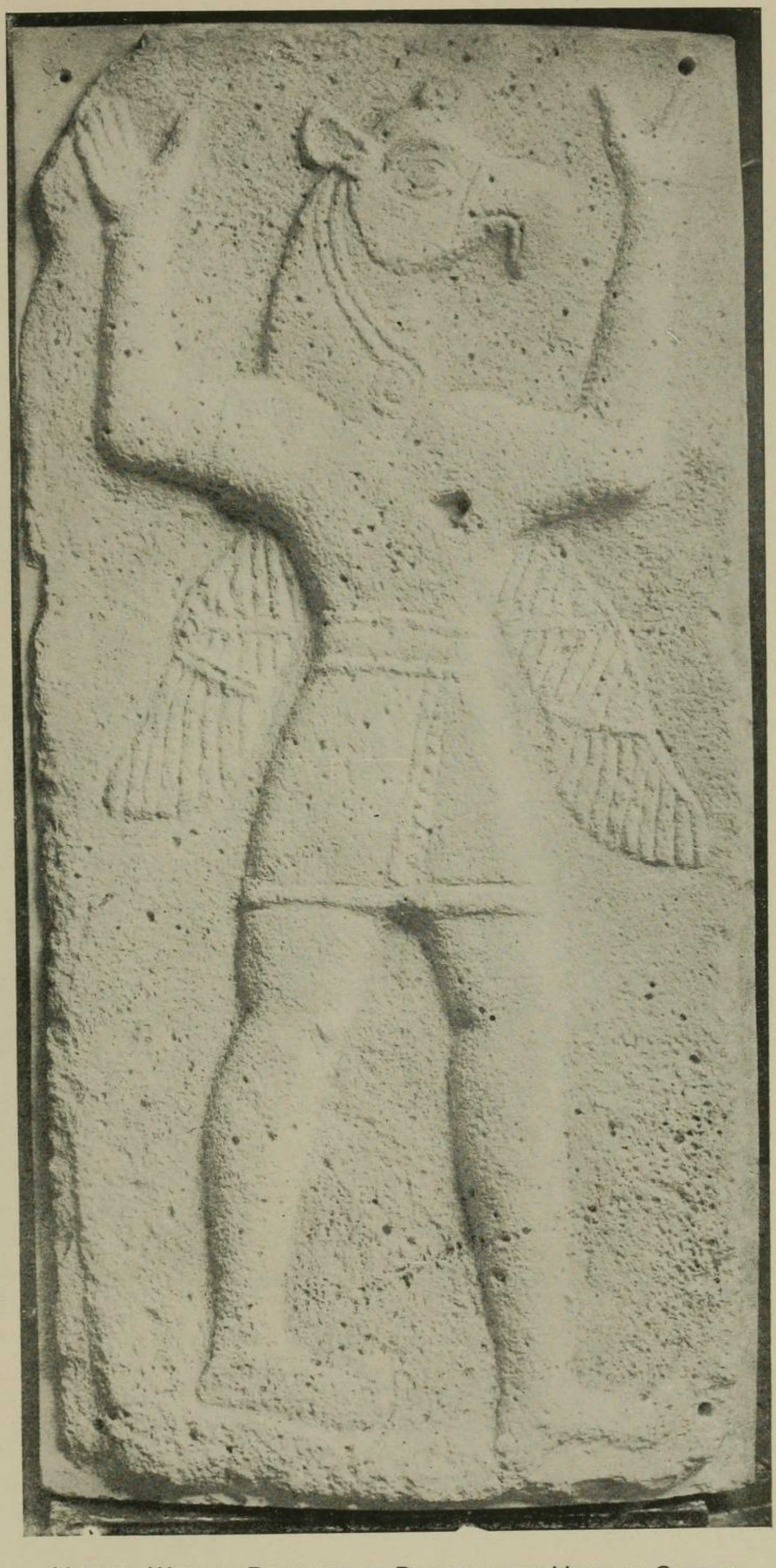


TRUMPET.



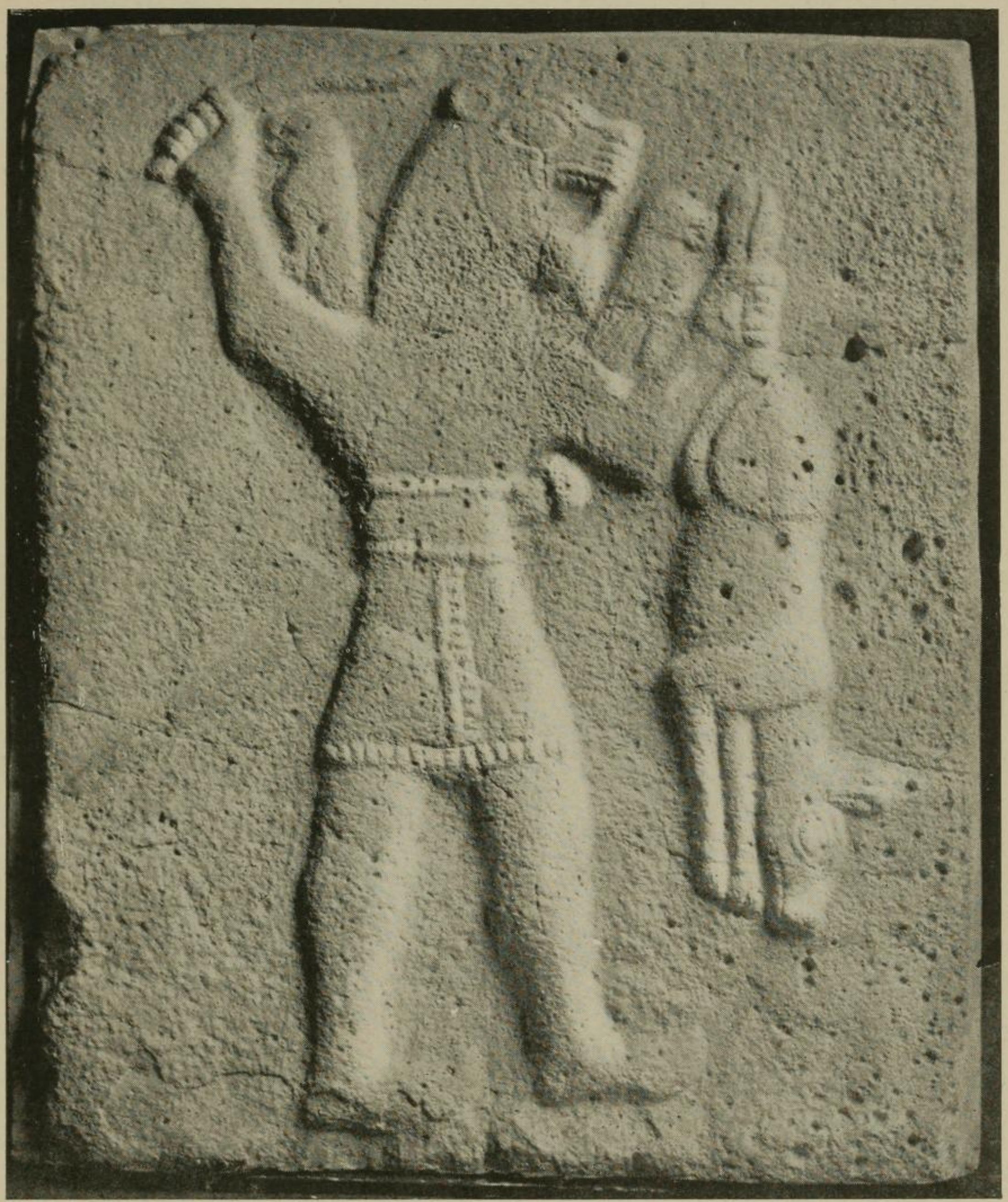
BAGPIPE.

SHOWING PART OF THE GRECO-ROMAN SCULPTURES.



HITTITE WINGED DIVINITY, OR DEMON, WITH HEAD OF GRIFFIN.

HITTITE LION CHASE.



HITTITE GOD OF CHASE HOLDING HARES.

THE HITTITE GOD TESHUB WITH THUNDERBOLT AND HAMMER.

HITTITE WARRIOR WITH AX AND SWORD.

HITTITE WINGED HUMAN-HEADED SPHINX.

HITTITE KING WITH SCEPTER AND SPEAR.

CORINTHIAN CAPITAL.

CASE CONTAINING GREEK AND ITALIAN POTTERY.

Beneath the lion is seen the prostrate form of a giant. Cybele is preceded by a female attendant with sword, and further to the front, by the rude and powerful form of a *Cabirus* (a deity of the subterranean fire, etc.). He carries his attribute, the hammer, which he is aiming at the most monstrous form of the whole frieze; a giant who has not only the legs of a serpent, but the hump and ears of a buffalo. He has thrown his huge bulk on his enemy, who drives his sword up to the hilt into the monster's body.

On the shelves are ranged 65 reduced casts of statues and busts representing the Greco-Roman pantheon from Zeus (Jupiter), the "Father of Gods and Men," to the shepherd god Pan with nymphs, muses, satyrs, etc. There is also among these sculptures a reduced cast of the Moses of Michelangelo, the marble original of which is in the Church of San Pietro in Vincoli, Rome, representing Moses seated, the right hand holding the Tables of the Law and clutching the long beard, while the left arm is pressed close to the body.

The cases also hold facsimiles of some of the finest Tanagra terra-cotta figurines representing Greek mythological subjects, a small collection of electrotyped Greek cameos, casts of Greek bowls (pl. 48, showing a section of the exhibit). At the end of the last case is:

A "Classical Bouquet." An album containing hand-painted illustrations of the principal monuments of Greece and a few of Crete. The illustrations are explained by appropriate quotations from the ancient Greek authors in the original language, accompanied by translations in French, and from some modern authors. To this are added flowers culled from the spots which the illustrations represent. The album was conceived and executed with the aid of native artists from Greece by Miss Elizabeth B. Contaxaki, of the Isle of Crete, as a contribution for the Universal Exposition at Paris, France, in 1855, and by her presented to the Smithsonian Institution through Mr. Charles S. Spence and the Hon. Lewis Cass, Secretary of State. Bound in blue velvet, richly embroidered in silver, with floral designs, crown, wreath, and meanders, and inclosed in a carved wooden case.

On the wall over the cases are displayed, from north to south:

(i) A selection from the Hittite reliefs (see above, p. 457) found in Senjirli, Northern Syria. They represent—

1. Two goats leaping at one another.
2. Winged divinity, or demon, with head of griffin (pl. 49).
3. Lion chase, with the winged sun disk, the emblem of divinity (pl. 50).
4. Guitar player.
5. Lion-headed god of the chase, holding hares (pl. 51).

6. The storm god Teshub (corresponding to Addad of the Assyrians and Hadad of the Syrians), holding in one uplifted hand the thunderbolt, in the other an ax or hammer (pl. 52).

7. Warrior with ax and sword (pl. 53).

8. Winged sphinx with head of griffin.

9. Warrior with shield.

10. Winged human-headed sphinx (pl. 54).

11. Figure holding mirror; and

12. King in long robe with scepter and spear (pl. 55).

(ii) Four slabs from the frieze of the Parthenon in Athens, Greece (see under No. 52).

(iii) Reliefs from Harpy Tomb at Xanthos. The originals of white marble are in the British Museum, London. The monument from which these reliefs were taken was discovered in 1838 at Xanthos, in Lycia, Asia Minor. It is assigned to the sixth century B. C., and consists of a solid rectangular block of limestone, 17 feet high and 8 feet 4 inches square, surmounted by a low cornice and a flat top. Below the cornice is a frieze, about 3 feet 3 inches in height, surrounding the four sides of the monument, leaving only a small opening on the west side, through which the remains of the dead were passed into a chamber cut in the rock. The name "Harpy Tomb" is derived from the flying figures at the corners, each of which has the head, breast, and arms of a maiden, the claws, wings, and tail of a bird, and an oval body. Each is carrying a small human figure and represents the transport of souls to the lower world.

44. In the alcove, next to the case:

Head of David by Michelangelo. Cast made from the original statue of marble in the Academia at Florence, Italy. The statue is of colossal dimensions, known as the "giant," representing David holding the sling in his left hand and a pebble in his right hand (I Samuel xvii, 40), and is considered as one of the masterpieces of Michelangelo.

On the wall, Eleusian Relief. Cast of an original of Parian marble which was found in 1859 at Eleusis, Greece, and which is considered to be a work of the fifth century B. C. Now in the National Museum of Athens. The relief represents Demeter (Ceres) and Persephone (Proserpina), goddesses of agriculture, dispatching Triptolemus, a mythical youth of Eleusis, to spread the blessings of agriculture among men. In the center stands Triptolemus, his right hand uplifted to receive some object from Persephone, whom he faces. She bears in her left hand a long scepter, the right hand probably held ears of grain which she was giving him. Behind him stands Demeter, holding in her left hand a torch and with the right she is presumably placing a wreath or crown upon his head.

Ranged on bases at the south end of the hall are some of the large sculptures.

45. "The Fates." Original, of marble, in the British Museum, London. The two female figures formed part of the decoration of the eastern pediment of the Parthenon in Athens, Greece. They are commonly interpreted to represent, with a third female figure which was seated at their head, the three Fates (in Greek, *moirai;* in Latin, *parcae*), who rule the destinies of men and all things. Their names in Greco-Roman mythology are: Clotho, the spinner of the thread of life, usually with a spindle; Lachesis, the disposer of lots, who determines its length, with a globe or scroll, on which she writes the destiny; and Atropos, the inevitable, who cuts it off, with shears or scales.

46. The Laocoon Group. Cast of an original of Greek marble, now in the Museum of the Vatican, Rome, which was found in 1506, among the ruins of the palace of Titus, on the Esquiline, Rome. The group depicts the death, during the Trojan War, of Laocoon and his two sons, as described chiefly by Virgil in the Aeneid. Pliny (Natural History, xxxvi, 5), who saw the original work in the palace of Titus, ascribes its execution to Agesander, Polydorus, and Athenodorus, Rhodian artists, who probably lived in the time of Titus (d. 80 A. D.).

47. Corinthian Capital. Cast from the capital (partly restored) of a marble column of the temple of Castor, also known as the temple of Jupiter Stator, in the Forum in Rome. This temple, of which only three columns and the base remain standing, was originally erected in 496 B. C.; rebuilt in 117 B. C.; and again rebulit under Trojan (98–117 A. D.) or Hadrian (117-138 A. D.). It is considered to have been the most beautiful example of Roman architecture, and the capitals of its columns the most finished and elegant of the Corinthian order as developed by the Romans. The basis of the capital is a cylindrical core, which expands slightly toward the top so as to become bell-shaped. Around the lower part of the core are two rows of eight conventionalized acanthus leaves, based on the plant of the *Acanthus spinosus.* From these rise eight principal stalks which combine to form four pairs of volutes, one under each corner of the abacus, while smaller stalks, branching from the first, cover the rest of the upper part of the core. Between the angle and center volutes rise tendrils from which foliage is carried along the cavetto molding of the abacus. The abacus is on the plan of a square whose sides have been hollowed out and the corners truncated. From the middle of the abacus springs out, on each face, an eight-petaled rosette.

The cast was used as a model for the carving of the capitals of the columns placed at the southern (main) entrance of the Natural History Building of the United States National Museum (pl. 56).

48. "The Falling Gladiator." Original cast of a marble statue by Dr. William Riemer (1816–1879).

49. Egyptian Lion. Original of red granite in the British Museum, London. It is inscribed with the name of Tutankhamon, a king of the eighteenth dynasty, about the middle of the 14th century B. C., who dedicated it to Amenophis III.

50. Hermes, from the Island of Andros. Cast of an original of marble now in the National Museum of Athens, Greece, found in 1833 on the Island of Andros. It probably dates from the 4th century B. C. Hermes was originally the protecting deity of crops, flocks, and roads. His usual functions were those of a messenger of Zeus and leader of souls to the lower world. He was also the god of eloquence, inventor of the lyre, and patron of merchants and craftiness. The Romans identified him with Mercury. He is here apparently represented in his quality as conductor of souls. Around the tree trunk is coiled a serpent, symbolic of the connection between the upper and the lower world, and in one of his hands he probably held the wand (*caduceus*). Other attributes with which he is frequently represented are the winged cap (*petasus*) and the winged sandals (*talaria*).

51. Ogam Stone. (Reproduction.) From Aglish, County Kerry, Ireland. The Ogam characters are on the two upright corners. They read from the top—APILOGDO and MAQIMAQA. The first is probably a proper name, while Maqi or Maqa means "the son of." The inscription is imperfect. It has been rendered Apilogdo, the son or grandson of some unnamed person, but various interpretations have been given.

Ogam characters form a written alphabet for the Gaelic language, in use in parts of Ireland, Wales, and the Highlands of Scotland during the prehistoric period and continuing into the early centuries of the Christian era. They consist of shorter or longer parallel marks on a corner or stem line made in different directions and in groups of different numbers. They can be translated into Roman letters. Marks representing consonants are from 3 to 5 inches long; those from the corner to the *left*, at right angles, and in groups of 1, 2, 3, 4, and 5 marks stand, respectively, for B, L, F, S, N; the same to the *right* stand for H, D, T, C, Q; those crossing the corner at an angle of 45 degrees, for M, G, Ng, St, R; while the vowels are shorter lines or dots, and stand for A, O, E, U, I. The cross stands for P, or the diphthong AE.

52. The Parthenon. Model of wood. The Parthenon ("maiden's chamber") was the temple of Athene Parthenos ("maiden goddess"), the tutelary divinity of the city of Athens. It was erected in the middle of the fifth century, B. C., by the architects Ictinus and Callicrates under the direction of the sculptor Phidias, and stood on the summit of the Acropolis of Athens. By reason of the perfection of its proportions and the nobility of its sculptural decorations, the Parthenon is considered the most perfect monument of Greek architecture and art. It measured at the platform 228 by 101 feet, while its height was 65 feet, and was surrounded on three sides by a Doric colonnade. It was wholly built of Pentelic marble, and all its parts were joined and adjusted without cement. On the 92 metopes of the architrave were sculptured the battle of the gods with the giants, the contests of the Greeks with the Amazons and Centaurs, and, presumably, the conquest of Troy and the victory of the Greeks over the Persians. In the two pediments (gable roofs) were colossal groups representing, respectively, the birth of Athene, and the dispute between Poseidon (Neptune) and Athene for the possession of Attica, while on the frieze, which ran around the entire building to a length of 522 feet 10 inches, was depicted, in relief, the procession which took place during the Panathenaea, the chief festival of the goddess. Inside the temple stood the statue of Athene, made of gold and ivory, ascribed to Phidias, which, with its pedestal, rose to a height of 38 feet.

After having served in turn as a Greek temple, Christian church, and Mohammedan mosque, the central part of the Parthenon was destroyed by a powder explosion during the siege of Athens by the Venetians in 1687. It remains standing as a ruin with many of its columns in place, conveying a good idea of its original proportions. Most of the sculptures from the Parthenon are now in the British Museum—the so-called Elgin marbles.

The floor space in the hall is occupied by two rows of alternating double slope-top cases with upright center (called "American," cases) and flat-top cases, one extending through the middle, the other being on the window side.

Beginning at the north end with the middle (east side) row:

53. Containing the finer and older Greek and Italian pottery (see above, p. 440), ranging from the seventh to the fourth century B. C. (pl. 57).

54. Bronzes, necklaces, and lamps from Italy.

55. Greek and Italian pottery (smaller vessels). Bronze objects used for personal ornament; Fibulae, rings, pins, mirrors, torques, bracelets, wristlets, anklets, and figurines of man and animals. Mostly from Italy and Switzerland.

The fibulae, or safety pins, occur from the earliest civilization of the Bronze Age to the latest Roman times and even later in Anglo-Saxon and Scandinavian examples. They were usually made of bronze, though in the more elaborate and ornamented forms they were sometimes of gold. They vary greatly in size, the large bronze specimens being six inches, or even more, in length. The earliest fibulae are simple safety pins made of a single wire, sharpened at one end, twisted in a spiral, or circular curve about the middle, in order to give it a spring, and at the other end so bent as to form a catch and shield for the point. To this simple pin succeeds the fibulae with an arch or bow. From this developed the boat-type, in which the bow is so curved and shaped as to resemble a boat. The shield and bow are often decorated with designs, in relief or incised, and pendants.

56. Collection of necklaces, figurines of gods, mummied hand of a woman, and mummied cat from Egypt.

57. Large bronze vessels: Amphoras, pails (situlae), bowls, pitchers. Collection of terra-cotta figurines (see above, p. 443), and Roman-Etruscan bronze domestic utensils, as pans, cups, ladles, strainers, a steelyard; also masks and stamps.

58. Collection of ancient coins, seals, and bronzes. The coins were for the most part ploughed up by the natives in the region between Antiochia and the Euphrates in Syria, while the bronze figurines were found near the site of Carchemish, the ancient capital of the Hittites, modern Jerabis on the Euphrates, Syria.

59. Small bronze and pottery vessels. Small bronzes used in the toilet and dress, as razors, strigils, buttons, awls, bodkins, and needles; also a collection of surgical instruments, mostly from Italy.

60. Relics of the Stone Age from Germany.

61. Large bronze vessels; a bronze helmet; bronze heads and statuettes; bronze celts, swords, spearheads, knives, sickles, together with the stone molds for casting various bronze implements from various localities.

The term "celt" is used in archeology to describe implements of chisel-form, such as axes, hatchets, adzes, and chisels, which were used as cutting-tools or as weapons. The word is generally derived from the Low Latin *celtis*, a chisel. The bronze celts vary in size from one inch to one foot in length. The following four principal forms are distinguished in the development of the bronze celts:

1. Flat celts, the earliest and simplest form, approximating in shape the polished stone celts of the Neolithic period. They were probably hafted by the butt end being driven into a handle of wood, in the same manner as many stone celts have been mounted.

2. Flanged celts, having projecting edges produced by beating up the edges of the blade, or in the original casting. Such axes could be fixed more firmly in a cleft stick, and to prevent the blade from being driven too far into the handle it was sometimes provided, about midway, with a rise or stop ridge.

3. Winged celts, in which the flanges are extended so as to almost form wings. In some the enlarged flanges are hammered over, so as to form a kind of semicircular socket, with the part of the celt between them thinner, thus providing a deep groove on either side of the blade for the prongs of the handle. To this variety the name of "palstave" is given, a word derived from the Icelandic. The handle was at first secured by binding and later by the addition of loops at the sides of the celt, through which a cord passed behind the angle of the haft.

4. Socketed celts. Evolved from the flanged celts when core casting was introduced. In this form the handle is imbedded in the blade, while in the first three the blade was imbedded in the handle.

62. Stone implements from East Africa (see above, p. 434).

63. Antiquities from Troy (Hissarlik) and Armenia (see above, pp. 433 and 439).

64. Stone implements from South Africa (see above, p. 435).

65. Stone implements from Egypt and Palestine (see above, pp. 434 and 433).

66. Wooden model of a Swiss lake dwelling, with a selection from the agricultural and textile products of the lake dwellers. The model is provided with a glass plate representing the water. A wash of color administered to its lower side gives it a blue tint common to the lakes of Switzerland. Figurines of men, women, and children are shown pursuing the vocations of daily life (see above, p. 422).

67. Prehistoric antiquities from Japan and Korea (see above, p. 433).

68. Stone implements from Australasia (see above, p. 435).

69. Prehistoric antiquities from India and Cambodia (see above, p. 432).

In the outer row of cases, on the west side of the hall, beginning at the north end are:

70. Italian pottery, chiefly black ware and Arretine ware (see above, p. 442).

71. Prehistoric antiquities from Turkestan (see above, p. 440).

72 and 73. Two upright or special cases, containing prehistoric antiquities, stone implements, osseous remains and bone implements,

spindle whorls, terra-cotta lamps, glassware, etc., from Italy (see above, p. 428).

74. A small collection of Jewish and Egyptian objects.

75. Stone implements and osseous material of the Paleolithic period of the Stone Age from England and Ireland (see above, p. 424).

76. Prehistoric antiquities from Russia (see above, p. 430).

77. Remains of the Neolithic period of the Stone Age in Great Britain.

78. Collection of Brandon flints (see above, p. 425).

79. Stone implements and osseous material of the Paleolithic period of the Stone Age from France (see above, p. 426).

80. Selected casts of art works of the Stone Age (see above, p. 427).

81. Remains of the Neolithic period of the Stone Age from France.

82. Mesvinian and Strepyan artifacts from Belgium (see above, p. 429).

83. Remains of the Stone Age from Belgium.

84. Collection of animal bones, charred grains, etc., from the Swiss lake dwellings (see above, p. 423).

85. Pottery, stone, bone, and horn implements from the Swiss lake dwellings.

86. Stone implements and shells from the Danish kitchen middens (see above, p. 431).

87. Stone and bone implements and osseous material from Denmark, Sweden, and Norway.