Conclusions

A study of the above arguments and quotations must bring us to the following conclusions: (1) That neither *G. mexicanum* nor *G. siamense* are proper names for American Upland cotton; (2) that for more than a hundred years "Siam cotton" was a general name given to several species or varieties of West Indian cottons having tawny or brownish lint and to occasional white forms of these; and (3) that there has been brought forward no valid evidence to indicate an Asiatic origin for our American Upland cotton.

ZOOLOGY.—*Some new intermediate hosts of the Asiatic human blood fluke.*[1] Paul Bartsch, U. S. National Museum.

The rôle played by fresh-water mollusks as intermediate hosts of Trematode worms parasitic upon man, has received considerable attention in the last few years. As the elimination of the mosquito, or the curtailment of its development, eliminates or curtails malaria, so the elimination of the intermediate molluscan host of flukes will place a check upon fluke diseases. Great work has been done by Japanese workers in this field and more recently by Doctors Faust and Melaney in China.

The known intermediate hosts of *Schistosoma japonica*, the Asiatic human blood fluke, belong to two genera, namely, *Katayama* and *Oncomelania*. The first of these is typified by *Katayama nosophora* Robson, made known to us by the careful studies of Robson based upon specimens secured in the Katayama district in the Province of Bingo on the Island of Hondo, Japan. In the present paper I am recognizing as subspecifically distinct from this, the form that occurs at Kurume on the Island of Kiushiu, Japan, under the name of *Katayama nosophora yoshidai*. The Island of Formosa harbors the third race, *Katayama formosana*, described by Pilsbry and Hirasí as *Blanfordia formosana* some time ago.

Dr. Faust's researches in Chinese Schistosomiasis have brought to light the occurrence of *Katayama* on the mainland, and I am describing as *Katayama fausti* the species discovered by Faust at Shaohing, Chekiang Province, China, and as *Katayama fausti cantoni* the race which he found at Canton, Kwangtung Province, China.

The genus *Oncomelania*, of which there is more than one race, is the intermediate host of the human blood fluke in the Yangtse Valley, China. More material will be needed than I have at hand before a systematic discussion of this group can be undertaken.

[1] Published by permission of the Secretary of the Smithsonian Institution.

Katayama nosophora yoshidai, new subspecies

Shell elongate-conic, brownish horn-colored. Nuclear whorls well-rounded, smooth (always decollated in the adult specimens that we have seen). Postnuclear whorls strongly rounded, narrowly shouldered at the summit. The portion of the summit that is appressed to the preceding turn forms a darker colored zone than the rest of the whorl. The postnuclear whorls are marked by indications of somewhat irregularly developed and spaced, axial, curved thread-like riblets. These riblets are a little stronger on the last whorl than on the preceding. At irregular intervals strong varicial thickenings are present. Periphery of the last whorl inflated, strongly rounded. Base short, strongly rounded, narrowly openly umbilicated. Aperture very broadly oval; outer lip strongly curved with a strong varicial thickening immediately behind the peristome; inner lip almost vertical, curved, reflected over and almost half covering the umbilicus; parietal wall covered by a thick callus.

The type, Cat. no. 362024, U. S. N. M., was collected by Dr. A. Sadao Yoshida at Kurume, Kiushiu Island, Japan. It has lost the nucleus. There are eight whorls remaining, which measure: Length, 8.2 mm.; diameter, 3.3 mm. Cat. no. 340953, U. S. N. M., contains several hundred additional specimens from the type locality, collected by Dr. Yoshida.

This subspecies differs from *Katayama nosophora nosophora* in being in every way more robust and larger, and in having a much stronger sculpture than that race.

Katayama fausti, new species

Shell narrowly elongate-conic, horn-colored with a brownish tinge. Nuclear whorls decollated in all our specimens. Postnuclear whorls well rounded, narrowly shouldered at the summit, marked by very slender, curved, axial threads and rather inconspicuous varicial thickenings at irregular intervals. A very heavy varix forms a decided callus immediately behind the peristome, which extends from the posterior angle of the aperture undiminished to the columella. Periphery of the last whorl well rounded. Base short, well rounded, very narrowly umbilicated. The base is drawn out anteriorly to join the varicial callus referred to above. Aperture oval, pale brown within; peristome darker; outer lip gently curved, inner lip curved and reflected over about half the umbilicus; parietal wall forming a strong callus that renders the peristome complete.

The type, Cat. no. 362025, U. S. N. M., was collected by Dr. E. C. Faust at Shaohing, Chekiang Province, China. It has lost the nucleus; the remaining $5\frac{1}{2}$ whorls measure: Length, 6.5 mm.; diameter, 2.7 mm.

Katayama fausti fausti resembles in slenderness *Katayama nosophora nosophora*, but is at once distinguished from this by the exceedingly strong varical callus behind the peristome. The axial sculpture in this species is also much finer than in *Katayama nosophora nosophora*.

Cat. no. 362026, U. S. N. M., contains paratypes also collected by Dr. Faust.

Katayama fausti cantoni, new subspecies.

Shell elongate-conic, thin, semi-translucent, horn-colored with a brownish flush. Nuclear whorls decollated in all our specimens. Nuclear whorls

strongly rounded, narrowly shouldered, marked by obsolete, curved axial threads which are a little stronger on the last turn than on the rest. In addition to these there are inconspicuous varicial streaks at irregular intervals. Periphery of the last whorl well rounded. Base moderately long, well rounded, narrowly umbilicated, anteriorly produced to meet the strong callus-like varix which extends behind the peristome from the posterior angle of the aperture to the base. Aperture oval, pale brown within, with a dark brown edge at the peristome; outer lip strongly curved; inner lip moderately curved and reflected over about half the umbilicus; parietal wall covered by a rather thick callus.

The type, Cat. no. 362027, U. S. N. M., was collected by Dr. E. C. Faust at Fatshan near Canton, China. It has 6.1 whorls, and measures: Length, 6.5 mm.; diameter, 2.7 mm. Cat. no. 362028, U. S. N. M., contains paratypes also collected by Dr. Faust.

The present subspecies differs from *Katayama fausti fausti* in being much thinner-shelled, and in having the varix behind the peristome much less strongly developed. The axial sculpture here is also much finer and much closer spaced than in *Katayama fausti fausti*. It is much larger than *Katayama nosophora nosophora*, but smaller than *Katayama nosophora yoshidai*. It differs from both these Japanese forms by having the varix behind the peristome much stronger.

ENTOMOLOGY.—*New beetle guests of army ants.* W. M. MANN, Bureau of Entomology, Department of Agriculture. (Communicated by S. A. ROHWER.)

The four species of beetles here described are file guests of army ants. Dr. E. Wasmann has made photos of three of them, and included the fourth, *Ecitopora brevicornis* new species, in a table of species in that genus soon to be published in a general account of the Eciton guests.

All belong in the tribe Myrmedoniae of the Aleocharinae, and the two new genera add a little to the heterogeny of this already unnatural group.

The types of these species will be deposited in the U. S. National Museum.

Ecitopora brevicornis, new species

Length 1.8 mm.

Black, except abdomen and appendages which are brownish, the first two and the apical abdominal segment much lighter than the rest, the antennae reddish brown at base and the legs yellow. Opaque, ventral surface of abdomen somewhat shining; head, pronotum and elytra densely and rather coarsely, abdomen more finely, and the ventral surface shallowly punctate.

Hairs on head, thorax, elytra, and abdomen exceedingly fine, short, recumbent, yellow in color, abundant, longer and abundant on appendages and ventral surface of abdomen; mixed with stiff, erect black hairs on antennae and apical portion of abdomen.

Head a little broader than long, front broadly and rather strongly impressed at middle, with a narrow median impression with sublucid surface extending