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THE HART'S-TONGUE IN NEW YORK AND TENNESSEE.*

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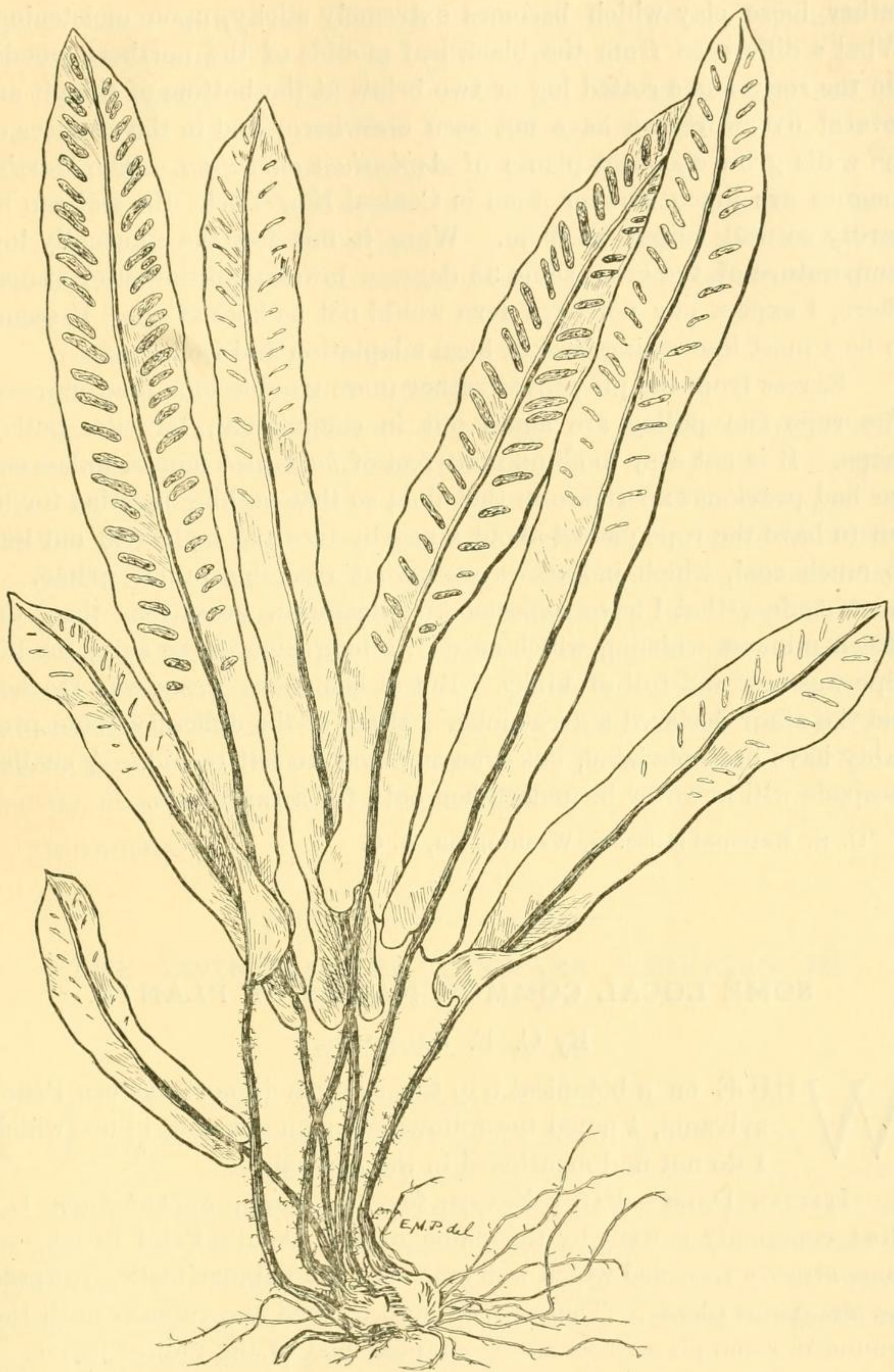
SO unique a fern is the Hart's-tongue (*Phyllitis scolopendrium* (L.) Newm.) among the species of the United States that the average amateur may easily pass it without recognizing it as a fern at all. At a short distance it reminds one somewhat of narrow-dock, minus a stem, or even of the common broad-leaved wood-sedge, *Carex plantaginea*, which in fact sometimes occurs near it; but a second glance only is needed to prove the emptiness of such comparison. The leaves are a thousand times more beautiful; the plant itself a picture of perfect grace. The accompanying drawing shows well the outlines of the fronds and their way of clustered growth; but there is an indescribable charm in the fern itself which even a camera must fail to catch. Indeed, to one who knows the Hart's-tongue only in the herbarium a most pleasant surprise is in store if the fern be sought in its home.

An average plant at Chittenango Falls or at Jamesville, New York, will consist of some ten to twenty fronds, arranged in a circular crown, more or less irregularly for the fern spreads somewhat by giving rise to plants from the rootstock, the whole forming a dense cluster. The fronds neither stand erect nor rest upon the ground, but assume a half-reclining position with a lazy gracefulness that suggests an indolent rather than a slovenly bearing. No other of our northern ferns with which I am familiar, unless it be possibly Goldie's fern, carries with it a suggestion of such elegance. A single frond seems coarse enough, a plain leaf a foot or more long and an inch and-a-half wide, heart-

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shaped at the base and tapering rather sharply at the tip. The saving features are the intense greenness, the crispness and the waxiness of the fronds. There is nothing leathery about them, as has frequently been asserted; they are extremely succulent, and quick to wilt upon rough treatment. Every frond is coarsely fluted, so that each wave shows to advantage the peculiar characteristic glossiness. There has been no dearth of material in *their* making! and their very rankness seems in harmony with environment. Theirs is indeed an ideal habitat; usually a rough slope of limestone fragments,—the talus of high cliffs—protected by a tolerably dense growth of deciduous trees. The soil is of the richest,—dark-colored and as “woodsy” as wood-soil may be—supporting a variety of other ferns, such as the omnipresent *Dryopteris marginalis*, with *D. Goldieana*, and *Asplenium angustifolium*. Under such conditions the fern attains a magnificent development in a half dozen stations in Central New York, where it was first found in the United States early in this century by Pursh.

A very different order of things prevails in the Tennessee station at South Pittsburg. Here, hidden in a great pit or “sink-hole” some ninety feet deep and sixty by forty feet across at the opening, it was discovered by the late Major Cheatham in 1879. It was with great pleasure that Mr. Pollard and myself found ourselves able to visit this peculiar location upon the third of last August. The sink is located about two miles to the southwest of the village, half way up the slope of a spur of the Cumberlands that runs out to the eastward. Its walls are perpendicular and without foothold on two sides, and on the other two retreat to form a cave which extends beneath the cliffs. A little stream from the wooded hillside above winds among the rocks, and tumbles precipitately into the mouth of the sink, striking a projecting ledge below, and dripping from the cliffs in little jets and splashes. We gain a fair idea of the picturesqueness of the place from above; fortunately we are provided with seventy-five feet of rope; otherwise access is impossible without felling a goodsized tree,—unless one elects to tumble fifty or sixty feet. We find the rope and pulley serviceable, though somewhat jarring, and are landed sixty feet below upon the higher rocky slopes of the bottom. Across and above to the right is the miniature cascade. A few of the ferns are there upon the wet cliffs, almost within the spray; but the great majority—more than a hundred, I think—are at our feet on the leveler clayey floor under the partial shelter of the projecting ledge. The soil is a light-colored



The Hart's Tongue (*Phyllitis Scolopendrium*), one-half natural size

rather loose clay which becomes extremely sticky, upon moistening. What a difference from the black leaf-moulds of the northern woods! On the rocks and a rotted log or two below at the bottom of the pit are several liverworts we have not seen elsewhere; and in the crevices of the walls grow excellent plants of *Asplenium parvulum*. The Hart's-tongues are much smaller than in Central New York; the soil can be hardly so well suited to them. Were it not for the unusually low temperature of the cave, some 35 degrees lower than the outer atmosphere, I expect our northern fern would not be here at all. It seems to be a most interesting case of local adaptation and isolation.

Egress from the pit proves rather more troublesome than ingress. The rope and pulley are again put in commission, but the pulley snaps. It is not easy to climb sixty feet of *half-inch* manila unless one has had previous experience in that line; so that nothing remains for us but to have the rope passed about a nearby tree and be hauled out like so much coal, which indeed we somewhat resemble in our grime. I must confess that I have experienced pleasanter sensations than the fifteen minutes whirling which ensued, a long time, to be sure, for the rope was new and full of kinks. But at last *terra firma* was reached and the affair declared a great joke. Much of the difficulty could probably have been obviated, but even as it was we felt repaid. A similar escapade will however be undertaken only for a rarer fern.

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SOME LOCAL COMMON NAMES OF PLANTS.

By C. F. SAUNDERS.

WHILE on a botanical trip this summer in northeastern Pennsylvania, I noted the following common names in use which I do not find mentioned in the manuals:

ITALIAN DAISY—PAINT BRUSH, for *Hieracium aurantiacum* L.; Most commonly it went by the name of the Devil's Paint Brush,—a name already recorded which well embodies the popular feeling towards the obnoxious plants. They spread both by seed and runners until the ground in some places becomes a complete mat of the radical leaves.

DEVIL'S-GUT, for *Spergula arvensis* L.; another embodiment in speech of the farmer's dislike towards a pestiferous weed.