

was written to, an answer would be obtained. We, ourselves, do not know the Moscatello Melon; but after having in our day grown myriads of kinds of Melons, we cannot say that we could recommend any one sort so far above any other as some people do, provided every one gets the kind he likes best; for even in some places the finest Scarlet-fleshed would not be looked at, and in others the juicy Green-fleshed and White-fleshed would be tabooed. A Melon this season may beat everything put against it, and the seeds from that Melon produce inferior fruit next year; in fact, flavour depends more on management than on kinds. Without the flavour the Melon is just about as good as a Gourd, and little better. We have tried many sorts against a wall, under

glass sashes merely, and with the centre of the plants protected by a hand-light as the correspondent proposes, and we have been successful, and unsuccessful, according to the season. We should expect Melons by either of these modes, if all our summer was like the hot days we have had this June. With a season like the last, we would expect to get little better than green fruit. In a fine season the hardier Green-fleshed and Cantaloup Melons will do by the mode proposed; in a cold, wet season they will do little good. This is our impression from the experience of the past, and with Melons, too, most likely, as great marvels for hardiness as the Moscatello may be; but, we own, we know nothing of it, and may, therefore, be mistaken.]

NEW PLANTS FROM JAPAN.

THUIOPSIS DOLOBRATA.

AMONG the new plants that have been received from Japan there are few that will exceed in beauty and interest *Thuiopsis dolobrata*, of which we furnish a representation drawn by Mr. Fitch from specimens sent home by Mr. John G. Veitch. Attaining as it does the dimensions of a lofty timber tree, and being now proved perfectly hardy in this country, it will introduce a new feature into the English landscape. It is of a pyramidal habit of growth, with horizontally spreading branches, which are drooping at the points, and perfectly evergreen.

It grows in the mountains of the island of Nippon, and particularly in the chain of mountains called Hakone, where it is found on the moist slopes of the hills. Its wood is very valuable for building purposes. The Japanese cultivate it in their gardens as an ornamental plant, and form dwarf trees of it from 3 feet to 6 feet high, which, to preserve of these dimensions, Siebold says, are propagated by cuttings. There is a variety with smaller leaves called by the Japanese *Nezu*.

A beautiful variegated variety of this noble tree has just been received by Mr. Standish, of Bagshot, from Mr. Fortune among a large collection of other living plants sent home by that gentleman, and which will be the most magnificent variegated tree in cultivation.

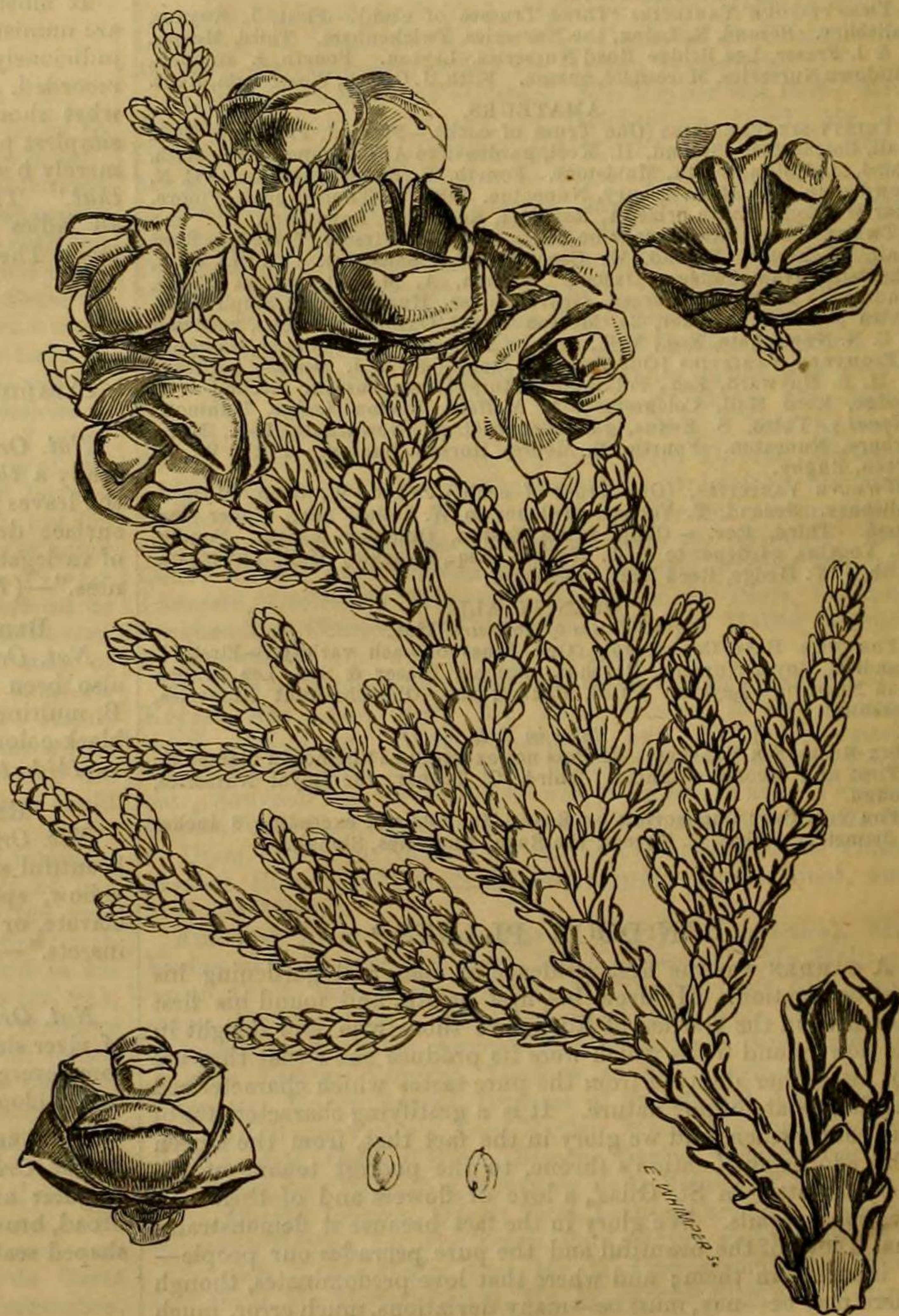
EFFECTS OF DIFFERENT KINDS OF POLLEN.

I HOPE that you will grant me a little space to thank some of your correspondents and Mr. Beaton for his interesting information how to test the effects of different kinds of pollen on the divisions of the same stigma of a *Pelargonium*, for my special purpose of ascertaining whether one variety is prepotent over another. I fear that the Scarlet *Pelargoniums* include at least two wild forms, which botanists would rank as distinct species. If Mr. Beaton is at any time writing on these plants, perhaps he would tell us what he knows about the wild parent of the Horseshoe and other Scarlets.

I am very glad that "P." sent a list of his *Pelargoniums* with the central flower regular; for I was not aware how common the case was.

Will "P." be so obliging as to observe and report whether any of the regular central flowers set seed—that is, if the kinds specified are such as ever produce seed?

With respect to the fertilisation of Wheat: several years ago I examined the flowers day by day, and came to the same conclusion as that which "H. C. K." expresses so forcibly. Mr. Beaton apparently does not much venerate botanical authorities, but he might easily quote a long list of great names to show that Wheat is always fertilised in the bud; what has misled so many botanists I cannot imagine. But stranger assertions of the same kind may be met with: for instance, that cruciferous plants are generally fertilised before the flower opens! As I am



away from home I write without my notes; but I remember that the Chinese have the singular belief that certain varieties of Wheat are always fertilised in the night-time. Col. Le Couteur, who attended so carefully to the varieties of Wheat, entertains no doubt that the different varieties, when growing near each other, cross. On the other hand, a full account has been published of a large number of varieties, I think 150, which were cultivated close together in some continental garden during several years, and never crossed each other. This account has much perplexed me; and I have sometimes been tempted to doubt whether any eye, however accurate, could have distinguished so many varieties, and that, perhaps, after all the

varieties did cross. Mr. Beaton might advance this case in support of his belief that Wheat is fertilised in the bud.

As Mr. Beaton alludes to some mistake which he has made, might I venture to suggest to him to punish himself by telling sooner than he intended by what means he can produce from pollen of the same flower placed on the stigmas of the same variety two different sets of seedlings? That is a mystery which it is tantalising to wait for.—CHARLES DARWIN, *Down, Bromley, Kent.*

THE PEAR FLY.

(Communicated to the Fruit Committee of the Royal Horticultural Society.)

Dexia nigripes? Walker; *Diptera*, pl. 12, 11.

"I TRUST it will not be uninteresting to the Fruit Committee if I call their attention to the history of a little fly which, without attracting the notice of the gardener, frequently destroys his crops of Pears, and probably Apples also; and if to a knowledge of the economy of the insect I can add a simple method by which its destructive effects may in future be prevented, or at least reduced in extent, I shall not deem the time misspent.

"To Henry Webb, Esq., of Redstone Manor, Reigate, a member of the late Pomological Society, I am indebted for several specimens of Catillac Pears which he sent me on the 25th of June, 1860, in which he had discovered several small maggots, which caused the fruit to fall off even at that early period. I at once placed them in a glass and covered them over, and on opening it in February last I found two flies had been produced, a male and female, which I will endeavour briefly to describe.

"The female is about three-eighths of an inch long, appearing to the naked eye of a pale grey colour, and in general formation like a common house-fly; but under a lens its distinctive characters are at once perceptible. Head semi-orbicular, dingy white, with a black velvety mark in front reaching down to the antennæ, and terminating at the back in form of a crescent; antennæ dark, set with short spines and slightly curved inwards; eyes rich brown, oval, widely separated; thorax ovate, angular at the base, with five remarkable black spots, one on each shoulder and three below, divided by a scarcely perceptible suture; several small black dots between the larger spots, out of which stiff setæ issue, the whole bearing a close resemblance to ermine; scutellum semi-ovate, centre white, with an angular black spot on each side, ending in a point with a stiff seta; abdomen four-jointed, dingy white, with three black spots on each joint, the centre one angular; wings dusky, long oval, with five principal nervures and several transverse, as I have endeavoured to show in the accompanying sketch; legs black. Under a lens this is a very pretty fly, belonging to the family muscidæ, of which Mr. Curtis enumerates forty-nine species in British entomology; but in the absence of figures and description I cannot identify it with any of them. It appears, however, to correspond with '*Dexia nigripes*,' figured by Walker, '*Diptera*,' pl. 12, fig. 11, although he describes the thorax as quadrimaculata, yet shows five spots upon it exactly according with my specimen. The male is smaller, of a more common dingy colour and not handsomely spotted. The maggots are very similar to those of the blow-fly but smaller. At what time the eggs were deposited, or in what part, cannot be precisely stated, but most likely when the Pear was in blossom, or very soon afterwards, as I have frequently discovered the larvæ of Lepidoptera in the blossoms of other trees, and bred them until they arrived at the perfect state. I think it would be almost impossible to destroy these mischievous larvæ or the flies at this time; but if every gardener who is made aware of their destructive effects were carefully to collect the fruits which they have caused to fall abortive to the ground, and burn them, the species above described might easily be kept under; and by adopting the same plan throughout the season, many other equally injurious insects might be almost extirpated, and thus tidiness and usefulness would be seen linked hand in hand.—F. J. GRAHAM, *Cranford, April 9, 1861.*"

MELON LEAVES TURNING YELLOW.

WILL you inform me the reason why the leaves of my Melon plants are constantly turning first yellow and then become brown and crisp, and crumble to pieces? I thought at first

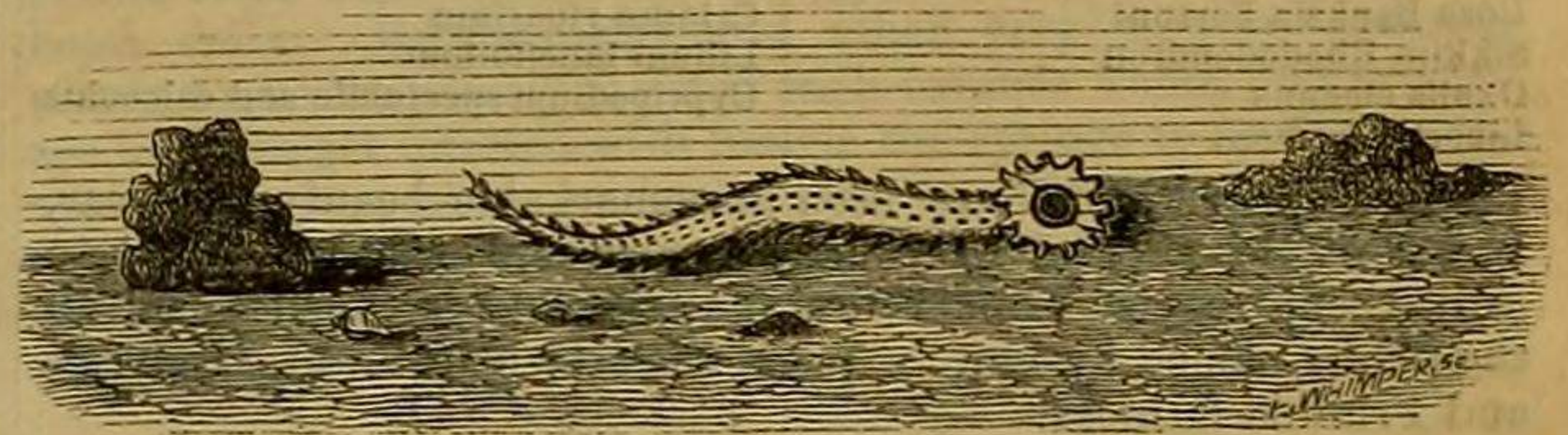
that it was only the leaves which touched the glass of the frame, but I find some of the under leaves affected in the same manner. I shade with tiffany during very hot sunshine, and give plenty of air day and night; watering when the soil appears getting too dry.—H.

[Leaving other causes out of view, such as dryness at the roots when the surface is sufficiently moist, and want of air when the sun suddenly comes out bright, which exposes the plants alternately to a steaming and a kiln-drying influence, such results will frequently occur from sudden alternations in the weather, from dense cloud to bright sunshine. The more the plants are used to regular shading, the more will they suffer when that regular shading is not given. Half an hour's neglect on a sunny morning will produce the result complained about. The watering, &c., may be all right; a few dull days have enervated the plants, and given the roots little to do. A brisk sun suddenly comes, the leaves to live must perspire freely, and as the activity is not equally communicated to the roots, but they are aroused more slowly, the leaves get scorched because they cannot be sooner supplied with moisture to meet the demands of the sun. A slight shading or a skiff from the syringe will often make and keep all right. We are, however, in doubts as to this being the cause in your case from your giving air night and day. Probably the shading has been extra well attended to, and a little neglect, nevertheless, exhibited at a time when the sun was very powerful.]

WHAT TO LOOK FOR ON THE SEASHORE.

(Continued from Vol. XXV., page 92.)

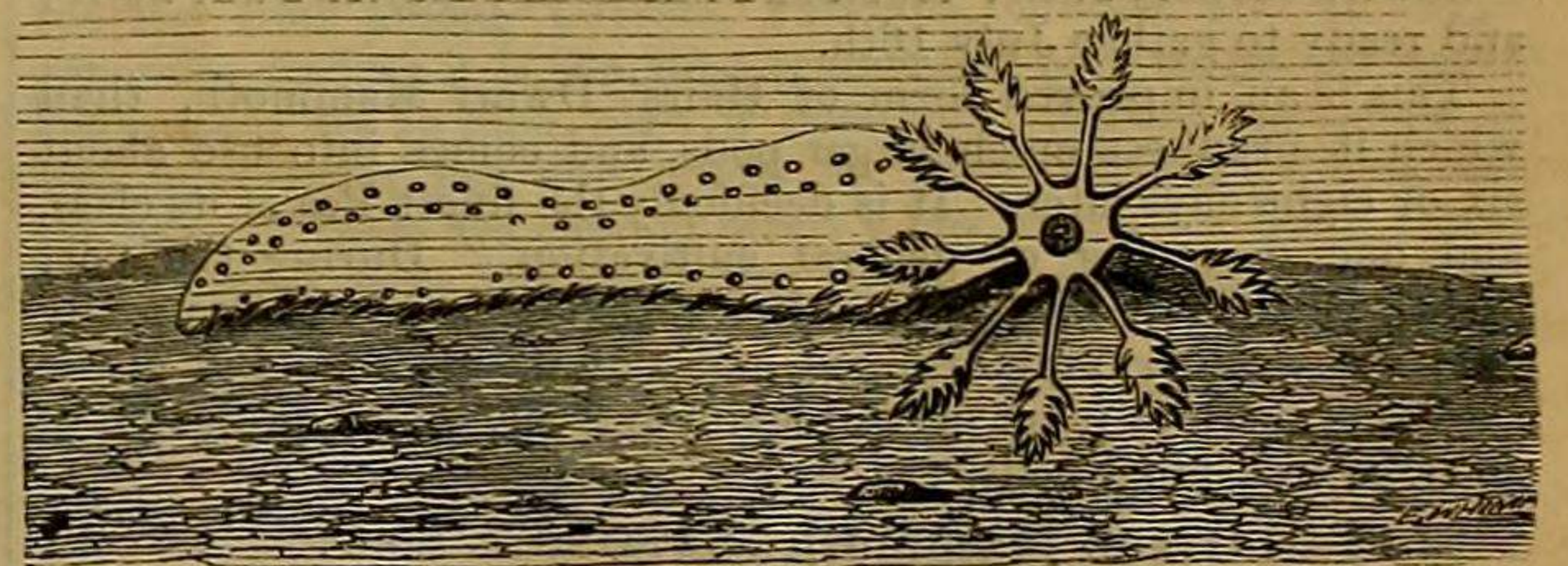
LONG SEA CUCUMBER (*Cucumaria fusiformis*).—This is a



small species, measuring only about an inch in length. It is round, tapers a little towards each extremity; and short as it is, is long in proportion to its thickness. The skin is of a pinkish-white, and covered with feathered papillæ. It has five double alternate rows of suckers; but they are not prominent. It has ten short sub-triangular tentacles, white and feathered.

The Long Sea Cucumber is very sluggish in its temperament, and not given to vary its form much. Many of the Holothuriæ, indeed, are extremely apathetic; whilst others are, on the contrary, wonderfully active and lively. This species is also dredged in the Shetland seas.

THE GLASSY SEA CUCUMBER (*Cucumaria hyalina*).—This



also a native of the Shetland seas, is a very elegant and delicate creature, being nearly transparent, and of an opal tint. It is fusiform, or spindle-shaped, attenuated at either extremity. It has two closely-set rows of suckers on each avenue. The tentacles are large, stalked, and feathered at the extremities. Its ordinary length is about 2½ inches, although it is stated to reach to a length of 6 inches.

THE TANGLE SEA CUCUMBER (*Cucumaria fucicola*).—This creature, again, is most commonly taken with a dredge off the coast of Shetland, and is generally met with in seven-fathoms water, where it adheres to the stems of marine plants or to rocks. It is a sluggish species, and clings with wonderful tenacity to whatever substance it attaches itself: this is effected,