my note[1] regarding the possible origin of mutations in somatic cells, in which I erroneously credited to Davis[2] the suggestion that triploid (semi-*gigas*) mutants of *Œnothera* are to be accounted for through the production of occasional diploid gametes by an extra fission of chromosomes. Obviously, as Gates points out, Davis's suggestion of diploid gametes could not have been offered as an explanation of triploid mutants, for the reason that the triploid condition in *Œnothera* was not known in 1911. Davis's suggestion was offered to account for the tetraploid condition of *gigas* mutants. The suggestion that tetraploid mutants may arise through a double fission of chromosomes in some mitosis soon after fertilization should have been credited to Gates.[3] I am grateful to Gates for setting me right in these matters.

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HOW ORYCTES RHINOCEROS, A DYNASTID BEETLE, USES ITS HORN

MANY beetles, particularly in the family Dynastidæ, have more or less conspicuous horns or processes on their head or prothorax. These often assume fantastic shapes and enormous proportions. Sometimes they occur on both sexes, but more often they are found only on the male or at least reach their greatest development there. In the latter case they have been looked upon by some as characters that may have been developed through sexual selection, the assumption being that males so ornamented were more attractive to the females or in some other way were more likely to be able to mate and thus perpetuate their kind. While such a theory may not be very satisfactory without more detailed observations or experiments to prove its soundness, we know of no other that is any more acceptable.

Many of the horns and projections are of such a size and character that it is hard to conceive of their being of any possible use to the insect in its struggle for food, or with its enemies. Possibly some of them are of no use in this way, but while studying the rhinoceros beetles, *Oryctes rhinoceros,* in Samoa last summer, I had an opportunity to watch these insects making a very evident and profitable use of the horn on their heads. The horn is present on both sexes and is usually longer on the male than on the female, but many males may be found with very short horns and many females with long horns, so that the sexes can not be separated by this character. The horns vary in length from 1.5 mm. to 10 mm., 6 or 7 mm. being about the average length. The beetles feed on the growing heart in the crown of the coconut trees. They usually enter the trees close to the base of a leaf, crawling down as far as they can between the tree and leaf-stem before beginning to bore. The spiny legs enable the beetle to brace itself firmly before it begins literally to root its way into the web-like sheath through which it usually has to pass before it reaches the hard wood. In doing this the head is lowered and the horn thus thrust forward. The horn becomes imbedded in the tissue of the plant and when it is raised serves as an anchor to hold the insect while it pulls or pushes its body forward with its legs, or while it tears the tissue of the plant with its heavy mandibles. The insect will always root and push its way as deep as it can before it begins to bore. The amount of power it can develop while trying to force its way between the bases of two leaves or in other tight places is truly remarkable.

Thus, in this instance at least, we see that this horn is of direct use in aiding the insect to reach its food.

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1 *Amer. Nat.,* 47: 375, 1913.
2 *Annals of Botany,* 25: 959, 1911.
3 *Archiv f. Zellforsch.,* 3: 525, 1909.

SCIENCE AND THE NEWSPAPER

WHILE recently giving a discussion of the inclined plane, an idea which was new to me suddenly presented itself. The equation asserts that the force required to make a mass slide up the plane would under certain conditions be made less, by making the plane