slide finally came to rest. Here a few trees that were left standing are deeply scarred 10 or 15 feet above the ground where they were struck by trunks that were carried forward over deep snow. A number of excellent heliotype views are given of the mountain, the frontispiece being particularly fine.

W. M. DAVIS.

ZOOLOGICAL NOTES.

REGENERATION AND LIABILITY TO INJURY.

IN a recent number of the *Anatomischer Anzeiger*, Professor T. H. Morgan gives an account of his later experiments on the regeneration of the appendages of the hermit-crab. It will be remembered that his first experiments, made at Woods Hole in 1898, showed that certain appendages, because of their protection within the mollusk shell in which the crab lives, regenerate after artificial amputation quite as readily as the more exposed appendages which in nature are constantly liable to injury, and which actually reveal a much higher percentage of injuries. This result was clearly at variance with the opinion of those who believe that there is a definite relation between the regenerative capacity of a part and its liability to injury.

Professor Weismann attempted to explain the phenomenon by attributing to the more or less protected appendages of the hermit-crab the inherited regenerative power of some remote ancestor—an ancestor which was not domiciled in a shell. Moreover, he thought the fact that the power of autotomy was possessed by the three anterior thoracic appendages—parts frequently subject to injury—and not possessed by the two protected posterior pairs, was evidence of the comparatively recent origin of autotomy, and the more remote origin of regeneration, Morgan having shown that the fourth and fifth pairs of legs do regenerate. In stating that "The adaptation for autotomy once gained, the power of regeneration had of necessity to become localized; that is to say, the apparatus necessary for it had to be transferred to those parts at which alone the breaking off of the the limb occurs," Professor Weismann gave, to use his form of expression, a new lead which Morgan has again followed in his series of experiments of the summer of 1899. These experiments show that the power of regeneration has *not* become localized, and that the first three thoracic legs can regenerate both when cut off proximal to, and when cut off distal to the breaking-point of autotomy. Moreover, the experiments of Morgan incidentally give additional reasons for his earlier conclusion that there is no relation between regeneration and liability to injury, for in removing the appendages, at a point proximal to the 'breaking-joint,' he laid bare a regenerative zone, which in a state of nature must almost never be called upon to exercise the function of repair.

Weismann's suggestion that in the last abdominal appendage the regenerated part would be renewed after the pattern of a tail-fin of the Macroura, rather than after the original pattern of a 'holdfast,' is shown not to be supported by the facts.

H. C. B.

COMFORT AND PRODUCTIVITY.

M. MAX GERARD, in the *Bulletin Scientifique*, of the University of Liege, January, 1900, shows the influence of the compensation of the workman upon the productivity of establishments, taking his data from Dechesne, Ansiaux, and Waxweiler. He places the values of services and products, as reported from the several countries, in certain cases, thus:

	Wages per diem.	Value of product: Labor per tonne.
United States	12.20 fr.	17.15 fr.
Great Britain	6.25 "	15.15 "
France	4.15 "	16.90 "
Belgium	3.20 "	10.50 "

It is thus found that the cost of the product is, as a rule, very slightly affected, in these different countries by the wages paid their workmen, and France, paying one third the wage given in the United States, finds the product to cost practically the same amount. Great Britain, paying one-half the wages paid in the United States, produces very little more cheaply. Belgium pays little more than one-fourth the wages ruling in similar establishments in America and the product costs two-thirds as much, and even this difference may be due, in some degree, to other conditions.

The author of the paper accounts for these facts by the interaction of wages and morale,