

sterilization. Any tight container could have been used in place of such a chamber. The treatment was given during the first two weeks in June, and by the first of July all the treated trees were in partial or full leaf, while the untreated trees remained dormant. Although a number of the latter slowly came into activity a month later, indicating that they were not dead, their foliage was not fully developed in September.

By a similar treatment a number of chestnut seedlings were made to break their rest period three months in advance of the normal season. The concentration of ethylene chlorhydrin was the same as that used for the sugar maples above, but the time period was four instead of three days. This treatment, while successfully breaking their dormancy, killed back the ends of the upper branches to four inches from their tips, and evidently a shorter time period or a lower concentration of the chemical is to be recommended in order to avoid injury. These seedlings were treated during the second week of January, and by the first of February their buds were breaking into activity.

The results of the treatments indicate that the vapors of ethylene chlorhydrin may be successfully used to break the dormancy of some tree seedlings. The chemical seems to be toxic to young branches at higher concentrations, but when properly regulated it has proven to be very useful for breaking the rest period of both sugar maple and chestnut seedlings.

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DUST PARTICLES

THE mongrel mixture of detritus called "dust" in the household, is commonly found precipitated on walls (*e.g.*, where radiators or leaks in window casings or door jambs produce air currents), or on protected areas of floors (*e.g.*, under beds or other furniture). The phenomenon is something quite apart from the quiet settling of fine particles according to Stokes's law, which causes the ordinary layer of "dust." It seems to involve an electrical precipitation and/or aggregation, whereby particles which have specific surface charges or which have become charged by adsorption of atmospheric charges (electrons, ions or smaller particles), attach themselves to wall areas or to other particles having opposite specific or net charges.

It would be an interesting research to see to what extent (if any) dust becomes charged by metal or other radiating surfaces, by friction due to air currents, and by sunlight. That horror of efficient housewives, known in New England as "house-moss," appears to consist of a fluffy mat of adventitious fibers (cotton, wool, linen, silk), whose electrostatically

active surfaces aid in holding them together and in fixing on them other kinds of dust particles.

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THE NERVOUS CONTROL OF HEMATOPOIESIS

SINCE the theories of hematopoietic control are still widely at variance, a series of tests was carried out to attempt to determine the rôle of the nervous system in the liberation of erythrocytes.

Periarterial sympathectomy was performed on the left femoral artery of each of three dogs, while the unoperated right leg was left as a control. The dogs were killed with chloroform, nineteen, fourteen, and twelve days after operation, respectively. The femora were dissected free, split lengthwise, and marrow from similar levels was fixed in formalin for subsequent histological section.

In each of five dogs, the sciatic nerve on the left side was injected with 5 cc. of freshly distilled alcohol. This was followed in each case by a subsequent unilateral paralysis. These dogs were killed one week later and the femoral marrow was prepared for examination.

Neither in the cases of periarterial sympathectomy, nor sciatic injection, were observable differences present between the marrows of the operated and the control sides.

These results are in keeping with the observations of Drinker, Drinker and Kreutzmann¹ (1917) who report that they found no outpouring of normoblasts after the complete section of sciatic and brachial plexuses.

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POSITION OF WOOD IN BEAVER DAMS

MR. CHARLES MACNAMARA brings up an interesting question in *SCIENCE* for December 18, 1931, with regard to the position of wood in beaver dams. At one time I did think that the most usual way for beavers to begin a dam was to lay the first sticks with the butt ends upstream. However, the more I study the construction of beaver dams the more evident is it to me that the animals have no set rules about it. I have seen dams that were just started where the butt ends of the sticks were laid upstream, and I have seen them where they were laid downstream. I have a photograph showing the latter condition where a dam was built across a stream and the beavers were extending it on to the gravelly shore or bank. Here it was plain that the willows were laid with the butt ends downstream.

In broken dams there are always the ends of many sticks projecting into the open gap, showing that they

¹ C. K. Drinker, K. R. Drinker and R. L. Kreutzmann, *J. Exp. Med.*, 27: 249, 1917.