a fair state of completeness. When thoroughly washed in distilled water, treated with acetic acid to remove all traces of the potash, dehydrated in alcohol and mounted in euparal or balsam on microscopic slides, the specimens proved to be quite adequate for the determination of the species. In the case of certain specimens the antennae, in particular, were often fragmentary, but a series of individuals revealed all the important characters necessary in classification. Thus it is possible to reestablish beyond doubt and to preserve permanently a considerable number of Clarke's species. The material thus reconditioned is sufficient to form the basis for a fairly complete report on the Clarke collection, which is in preparation and will be published later.

It has occurred to me that this experiment might prove valuable to curators of entomological collections who may now be in possession of fragile insect types which are in danger of destruction. Thus remnants of aphids mounted on points may be safely transferred to permanent slide mounts, where they are available for convenient study without danger of mutilation.

Permanent slide mounts of years' standing may also be reconditioned by first removing the balsam by submerging the slides in xylene or in Carlson's solution[2] consisting of ninety parts of xylene and ten parts of n-butyl alcohol. The opaque specimens may then be cleared in KOH as aforementioned, washed, dehydrated and remounted. With reasonable amount of care the individual insects may be restored to new slides in perfect condition if the work is done under a binocular microscope. Very transparent specimens are rendered more distinct by staining with magenta red or fuchsin, previous to or following dehydration. Especially are the wax-producing species improved for study because of the wax glands and pores, which may prove valuable characters in classification, as they are rendered more easily discernible under the microscope. The writer is subjecting lots of all species collected to the above described treatment and is finding that all forms, light and dark, are greatly improved thereby.

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AN ELECTRICAL REMEDY FOR TREE BORERS

THE writer recently rigged up a magneto as an amusement device for a pair of growing youngsters, with which they could give mild shocks to themselves and other youngsters of the neighborhood. Later, having heard of the method of driving earthworms out of the ground by electric current, the magneto was turned to this use. When a pair of steel rods wired to the magneto were thrust into wet ground about six inches apart and the crank turned, the earthworms came crawling out. Still later, when the writer was engaged in the laborious task of digging elm-borers out of a tree with a pocket knife, the idea came of turning the magneto to use for this job. When two nails were driven into the bark a few inches apart in the affected area, the nails attached to the magneto and the crank turned, the elm-borers came out in a few seconds. Subsequent digging in the electrically treated bark proved that the borers had vacated 100 per cent.

The system is much less laborious than digging out the borers and far more amusing. A magneto somewhat more powerful than the writer's would no doubt be quite valuable to orchardists and commercial tree surgeons.

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AN IMPROVED METHOD OF PREPARING DISTRIBUTION MAPS

THE distribution of species is commonly represented by means of black dots on outline maps. Such maps can be very easily prepared by punching the dots out of black gummed paper (such as lantern-slide binding-tape) with an ordinary ticket punch and sticking them on the map. This method is quicker, produces more uniform results and photographs better than when the dots are drawn in with ink. By using various sizes and shapes of punches different dots may be made for different varieties and species. Open circles can be produced by gluing a small white circle in the center of a larger black one.

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[2] J. Gordon Carlson, SCIENCE, n. s., 81: 365, 1935.