

Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.



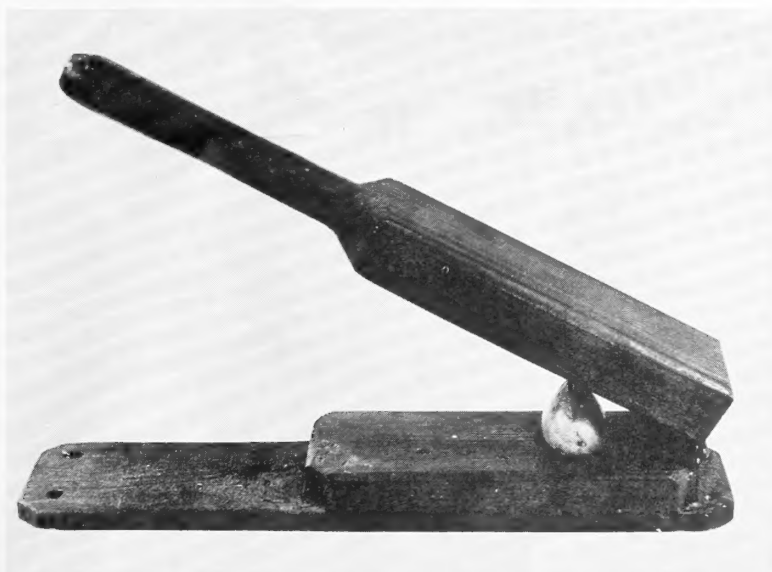
United States Department of Agriculture
Agricultural Research Service

SIMPLE DEVICE FOR OPENING COTTON BOLLS

Edgar W. Clark, Entomology Research Division, and
P. L. Netterville, Plant Pest Control Division

Considerable time is required in opening mature cotton bolls, especially in connection with pink bollworm and stink bug investigations. Usually the base is cut off the boll and each carpel slit from tip to base so that the locks can be taken out in their entirety.

This work can be materially facilitated by a simple inexpensive device of the nutcracker type. The base is a piece of wood 2 by 4 by 15 inches cut to give a place to fasten it to a table on each end and give clearance for the operator's knuckles. The lever is a piece of wood 1½ by 3 by 15 inches shaped to form a handle at the free end. The fulcrum consists of a 2½- by 2½-inch butt hinge fastened to the end of the lever and base in such a way as to give about ½-inch clearance between the two blocks. About 2½ inches from the hinged end are two opposing holes the shape and size of an average cotton boll and about ½ inch deep.



U. S. DEPT. OF AGR. LIBRARY
BELTSVILLE BR.
LIBRARIAN
10-24-55 PLANT INDUSTRY STA.
33 BELTSVILLE, MD.

- 2 -

There are two possible modifications that can be made. If clearance for the fingers is wanted, either the holes can be made nearer one edge or a slot can be cut to the holes to accommodate the thumb and forefinger. If a larger number of bolls are to be processed for examination, a counter can be attached to the side of the base and actuated by means of a finger mounted on the lever. This addition will automatically record the number of bolls cracked and greatly simplify the operation.

It has been found that a bench top makes an efficient base when portability is not essential. The lever is secured so that the handle projects over the edge, thereby giving knuckle clearance.

The bolls opened by this device are in even better condition for examination than those opened with a knife, and ten times as many can be opened in the same length of time.

This device was first suggested by W. E. Conn of the Plant Pest Control Division (retired).

Agriculture - Washington