which would simplify and improve it. The main disadvantage of this type of label holder is the fact that it is necessary to fasten it to the stake either by nails or screws. To do this requires considerable extra labor.

With the aid of a tinsmith, a label holder was devised which simply slips down over the top of the stake and is held firmly by two tin clasps which fold back around it (Fig. 1, C). The top of the stake fits into a tin slot which helps to hold the label holders in place. Two sizes of label holders have been made, the smaller one is made from a piece of tin 3 7/8 by 3 7/8 inches and the larger one from a piece 4 7/8 by 6 inches (Fig. 2). These holders were designed for tags 7/8 by 2 7/8 and 3 by 5 inches, respectively. The smaller holders will accommodate the No. I.P. tags. These can be obtained either with wire or threaded with string for tying on nursery rows at harvest. When the grain is threshed the same tag may also be used to tie the bags. A 1/2-inch slot was made on the sides for the tag. A small piece of the metal was punched and bent back to hold the tag at the base. The opening of the slot is adjustable and can be readily made to hold securely labels of different thicknesses (Figs. 1 and 2).

Four thousand of these removable label holders were used at the Utah Agricultural Experiment Station during the summer of 1932, and in no case did the label holder or pasteboard tag become detached. The fact that they are simple in design and easily made makes the cost nominal—1 cent each for the small size and 3 cents each for the large size.—D. C. TINGEY and R. W. WOODWARD, Utah Agricultural Experiment Station, Logan, Utah.

BULK EMASCULATION OF SORGHUM FLOWERS

The need of a method for bulk emasculation of sorghum flowers was brought to our attention in 1926 and 1927 when large numbers of artificial crosses were being made for varietal improvement and for inheritance studies. Back-crossed populations were desired, but the usual method of individual floret emasculation was too slow and tedious to secure them in that way. Various possible methods of bulk emasculation were discussed, but no definite attempts were made until the summer of 1932. During the previous winter, Dr. L. J. Stadler, University of Missouri, had suggested that we try killing the pollen with hot air. No funds were available to construct a hot air chamber, but the idea of substituting hot water occurred. The equipment (Fig. 1) used for hot water treatment of the inflorescence was as follows: A 3-pound coffee can with a hole cut in the bottom sufficiently large to pass over a sorghum head was used as the water container. A section of tire inner tube about 10 inches long was stretched over the bottom of the can, and, when in use, the other end of this tube was tied around the peduncle of the head. The can was mounted on an adjustable tripod made of plaster laths. A thermos jug, tea kettle, and thermometer completed the equipment. The success of the pollen kill without harm to other essential floral parts was determined in two ways. In some cases a few branches of the inflorescence were bagged with glassine bags immediately following treatment and the remainder of the head was left exposed to wind-blown pollen from surrounding plants. The effectiveness of the...