No. 694,419. Patented Mar. 4, 1902.

W. C. RENAKER.

GRAIN TUBE CUP.

(Application filed Nov. 6, 1901.)

(No Model.)

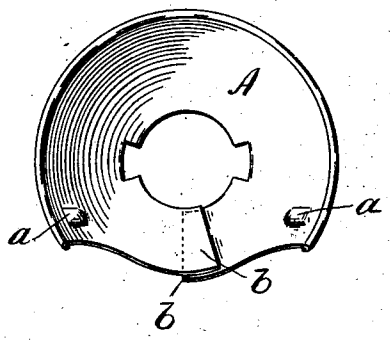


Fig. 1.

Fig. 2.

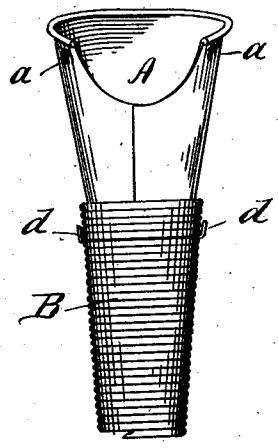
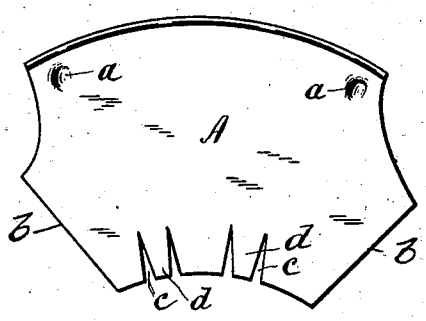


Fig. 3.



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UNITED STATES PATENT OFFICE.

WALTER C. RENAKER, OF CYNTHIANA, KENTUCKY.

GRAIN-TUBE CUP.

SPECIFICATION forming part of Letters Patent No. 694,419, dated March 4, 1902.

Application filed November 6, 1901. Serial No. 81,300. (No model.)

To all whom it may concern:

Be it known that I, WALTER C. RENAKER, a citizen of the United States, residing at Cynthiana, in the county of Harrison and State of Kentucky, have invented certain new and useful Improvements in Grain-Tube Cups, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to grain-tube cups such as are coupled immediately below the seed-openings in the hopper of grain-drills and to which cups tubes are connected for conveying the grain from the drill to the furrow. These grain-tube cups and tubes are ordinarily made separately from the grain-drill and connected by a simple coupling connection underneath the grain-hopper at the delivery-openings of the seed plates or wheels, and heretofore the cups have usually been made of cast-iron, provided with lugs at the upper end to connect them by suitable openings to the grain-hopper, and as the cups and tubes are manufactured separately slight variations in the size of the coupling connections or in the cup-casting prevent a suitable fit.

It is the purpose, therefore, of my invention to provide a simple, cheap, and durable cup whose size or diameter will be capable of of adjustment, so that the cups can readily be made to fit any of the various-sized coupling connections on any of the ordinary grain-drills.

My improved cup is especially adapted for the construction of grain-tube made out of coils of wire, such as is illustrated in the patent to Welling, No. 680,748, of August 20, 1901, and the same sort of coupling connection for the grain-tube to the cup is by preference used in connection with the present invention, which relates, as I have already stated, more particularly to the construction of cup adjustable in size to meet the requirements of the various grain-drills.

In the drawings, Figure 1 is a plan view of my improved cup. Fig. 2 is a front elevation of same, showing a portion of the grain-tube connected therewith. Fig. 3 is a plan view of the blank from which the cup is made.

A is the cup for the grain-tube, made of sheet metal of sufficient resiliency for the purposes of my invention, hereinafter set forth. This cup is of a suitable size and shape and is provided with lugs *a a*, preferably indented in the sheet metal, by means of which lugs the cup is secured below the feed-openings and to the grain-hopper.

The cup is cut from a suitable blank of sheet metal, as shown in Fig. 3, and bent around into cup shape, with the vertical edges *b b* overlapping.

For the purpose of securing the grain-tube B to the cup I cut slits *c c* in the blank, leaving tongues *d d*, which are bent upward into hook form to form a screw connection with the tube B, which is made of a coil of wire the elements of which lie close together, so as to form a continuous tube. To secure the tube to the cup, the tube is merely screwed onto the lower end of the cup by means of the hooks *d d*.

It will be evident that the diameter of the cup can be adjusted within reasonable limits by screwing up or unscrewing the tube and that the resiliency of the sheet metal will maintain the proper size for the cup.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. As a new article of manufacture, a cup for grain-drill tubes, made from a thin metallic blank, with its side edges overlapping, substantially as described.

2. A cup for grain-drill tubes made from a thin metallic blank, with its side edges overlapping, and means for compressing the cup to vary its size, substantially as described.

3. A cup for grain-drill tubes made from a thin metallic blank, with its side edges overlapping, hooks on the lower end of the cup, and a coiled-wire tube screwed therein to secure same thereto, and to compress the cup to the proper diameter, substantially as described.

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Witnesses:
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