March 9, 1926. 1,575,985

G. P. GALVIN ET AL

CLEANER DRUM FOR COTTON GIN FEEDERS

Filed April 15, 1925

Fig. 1.

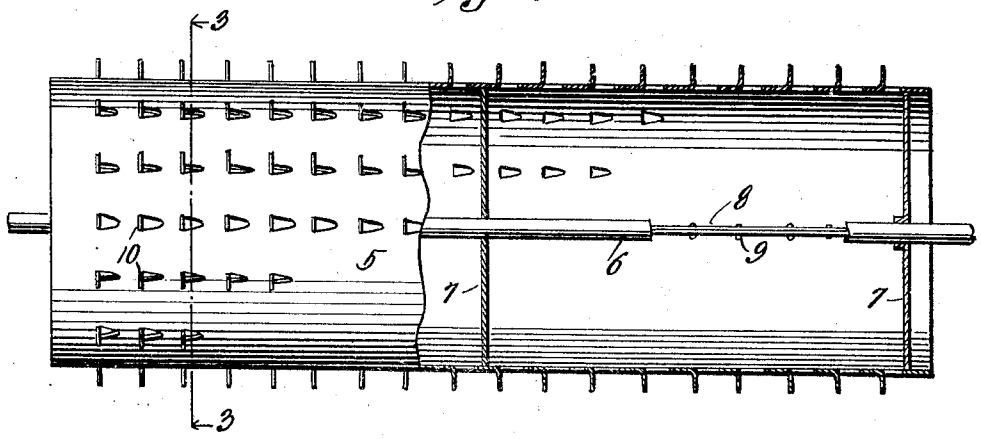


Fig. 2.

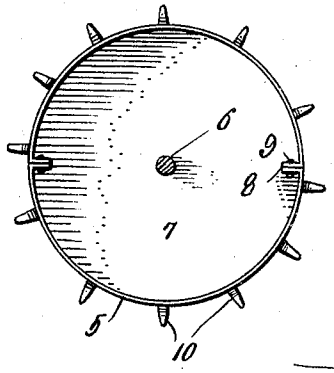


Fig. 3.

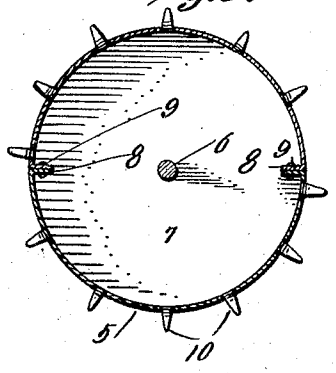
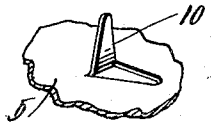


Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

GEORGE P. GALVIN AND FRANK L. SWENEY, OF DALLAS, TEXAS.

CLEANER DRUM FOR COTTON-GIN FEEDERS.

Application filed April 15, 1925. Serial No. 23,357.

To all whom it may concern:

Be it known that we, GEORGE P. GALVIN and FRANK L. SWENEY, citizens of United States, residing at Dallas, in the county of Dallas and State of Texas, have invented certain new and useful Improvements in Cleaner Drums for Cotton-Gin Feeders, of which the following is a specification.

This invention relates to certain new and useful improvements in cleaner drums for cotton gin feeders, and has more particular reference to an improved metal drum to be used in a cotton gin feeder for cleaning cotton.

The primary object of the invention is to provide a metal drum of the above kind which will be extremely simple and durable in construction as well as capable of more thoroughly cleaning cotton than drums heretofore available in so far as we are aware.

It has been the common practice, heretofore, to construct the cleaner drums of cotton gin feeders of wood with spikes or prongs driven or otherwise secured therein, and these drums have not been entirely dependable because they are subject to early destruction and frequent repair. Furthermore, these conventional drums have not been any too efficient in the cleaning of cotton.

It is accordingly an object of the present invention to provide a cleaner drum for cotton gin feeders which will be entirely dependable by being capable of substantially indefinite use without repair.

Another object is to provide a drum of the above kind which will more thoroughly clean the cotton and insure a positive performance and durability equal to and beyond the life of the machine in which it is used.

Still another object of the invention is to provide a cleaner drum of the above kind which may be cheaply and easily manufactured with facility.

Other objects will become apparent as the nature of the invention is better understood, and the same consists in the novel form, combination and arrangement of parts hereinafter more fully described, shown in the accompanying drawings and claimed.

In the drawing, wherein like reference characters indicate corresponding parts throughout the several views,

Figure 1 is a view partly in elevation and partly in central longitudinal section showing a cleaner drum constructed in accordance with the present invention.

Figure 2 is an end elevational view of the device shown in Figure 1.

Figure 3 is a transverse section taken substantially upon line 3—3 of Figure 1, and

Figure 4 is a fragmentary perspective view illustrating the manner of forming the prongs of the drum.

Referring more in detail to the drawing, the present invention consists of a sheet metal cylinder or a circular drum 5 adapted to be secured upon and supported in concentric relation with its driving shaft 6 by means of supporting elements 7 secured internally of the drum 5 and preferably in the nature of sheet metal discs having central openings through which the shaft 6 projects. These supporting discs 7 are preferably arranged so that one is positioned intermediate the ends of the drum or cylinder 5 and another is positioned adjacent each end of the latter.

As illustrated clearly in the several views, the cylinder or drum 5 is preferably composed of a pair of similar longitudinal half sections having inturned contiguous flanges 8 secured together by riveting or bolting as at 9. This permits more convenient manufacture and assembling of the device, and at the same time, the contiguous flanges 8 act as reenforcing ribs for the drum.

Radial outwardly projecting spurs 10 are provided from end to end of the cylinder and preferably in circumferential and longitudinal spaced rows as shown in Figure 1, and these spurs are preferably formed by stamping prongs from the material of the cylinder or drum 5 as clearly shown in Figure 4 whereby said prongs taper substantially to a point at their outer free ends. In practice, it has been found that drums provided with prongs in accordance with the above will function to more thoroughly clean the cotton so that the latter will bring a higher price in the market.

The drum constituting the present invention may be made in various diameters and shapes and may be constructed from sheet steel or iron of various gauges. Further, the prongs which are punched from the drum may be varied in length and width and the spacing thereof may be varied both longitudinally and circumferentially of the drum to suit the requirements of any par-

ticular case where drums of the present kind are employed.

The present drum will function in the same general manner as prior cleaner drums of cotton gin feeders, and an example of this prior type of drum is clearly illustrated in the United States Letters Patent to W. A. Hiller, No. 1,448,443, dated March 13, 1923.

From the foregoing description it is believed that the construction and operation as well as the advantages of the present invention will be readily understood and appreciated by those skilled in the art.

What we claim as new is:

1. A cleaner drum for cotton gin feeders comprising a sheet metal cylinder having outwardly projecting radial spurs stamped therefrom and provided with means for mounting the same upon and in concentric relation to a driving shaft.

2. A cleaner drum for cotton gin feeders comprising a sheet metal cylinder having outwardly projecting radial spurs stamped therefrom and provided with means for mounting the same upon and in concentric relation to a driving shaft, said spurs being arranged in spaced circumferential and longitudinal rows and being of outwardly tapering substantially pointed form.

3. A cleaner drum for cotton gin feeders comprising a sheet metal cylinder having outwardly projecting radial spurs stamped therefrom and provided with means for mounting the same upon and in concentric relation to a driving shaft, said spurs being flat and the planes of the same being transverse to the longitudinal axis of the drum.

4. A cleaner drum for cotton gin feeders comprising a sheet metal cylinder having outwardly projecting spurs stamped therefrom and provided with means for mounting the same upon and in concentric relation to a driving shaft, said cylinder comprising similar semi-circular longitudinal half sections provided with inturned contiguous pairs of flanges rigidly connected together to form longitudinal internal reenforcing ribs on the cylinder.

5. A cleaner drum for cotton gin feeders comprising a sheet metal cylinder having outwardly projecting radial spurs stamped therefrom and provided with means for mounting the same upon and in concentric relation to a driving shaft, said means for securing the cylinder on the shaft and in concentric relation therewith embodying discs secured internally of the cylinder at the ends and center of the latter and having central openings through which the shaft projects.

In testimony whereof we affix our signatures.

GEORGE P. GALVIN.
FRANK L. SWENEY.