

No. 683,826.

Patented Oct. 1, 1901.

F. A. WELLS.  
COTTON SEED HULLER.

(Application filed Apr. 24, 1901.)

(No Model.)

FIG. 1.

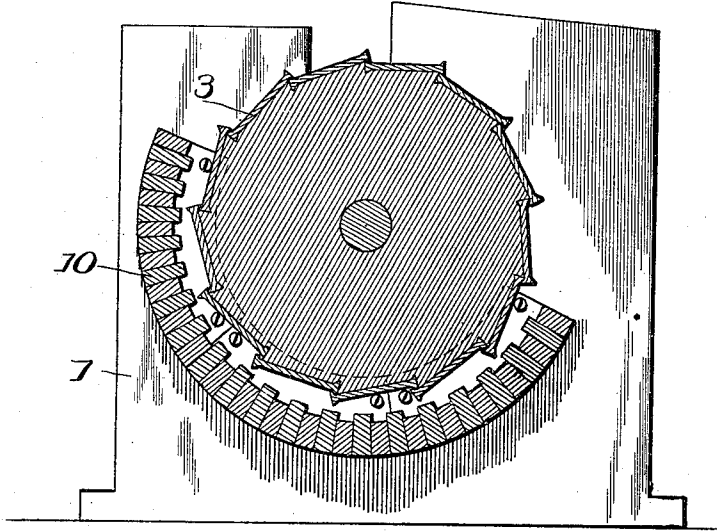


FIG. 2.

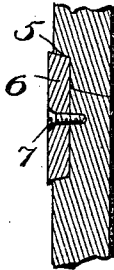
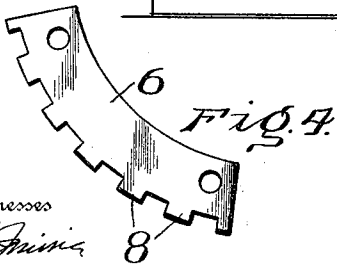
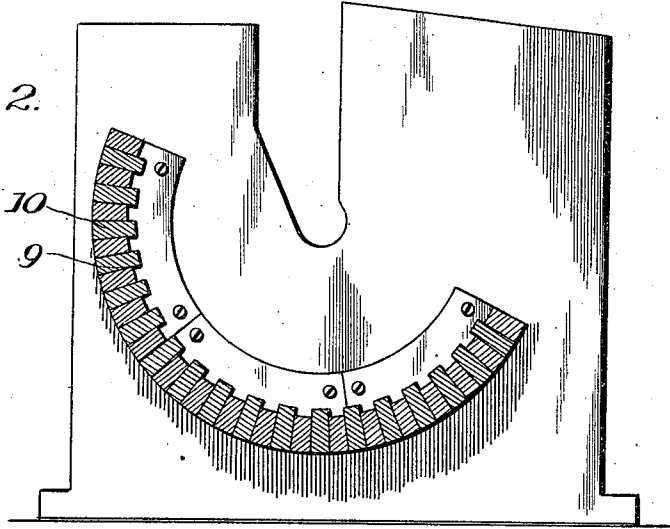


FIG. 3.

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# UNITED STATES PATENT OFFICE.

FRANK A. WELLS, OF FLORENCE, KANSAS.

## COTTON-SEED HULLER.

SPECIFICATION forming part of Letters Patent No. 683,826, dated October 1, 1901.

Application filed April 24, 1901. Serial No. 57,171. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK A. WELLS, a citizen of the United States, residing in the town of Florence, county of Marion, and State of Kansas, have invented certain new and useful Improvements in Cotton-Seed Hullers, of which the following is a specification.

This invention relates to an improvement upon United States Letters Patent No. 236,470, issued to me January 11, 1881.

In the working of the huller there is a tendency of the cylinder at its periphery to cut a channel or groove in the side walls of the huller during the process of crushing cotton-seed, and after a short time this groove becomes sufficiently large to allow seed to pass through whole uncrushed. It has been the custom when the machines get in this condition to detach the huller sides and send them to the shop to have the surfaces dressed down until all of the groove is taken out. This can only be done about twice, because after the second dressing down the metal becomes too light and unsafe to run, and hence this part of the huller has to be thrown into the scrap-pile. To obviate this trouble, I propose turning an annular groove about two inches wide and a quarter of an inch deep, with the outer and inner diameters slightly beveled, in the huller sides, where the objectionable groove has been found to form. Into this annular groove I secure two or more steel segment-plates with a saw temper, the edges of these plates to be beveled corresponding to the groove in the sides and secured therein by screws or other suitable means.

In the drawings, Figure 1 is a sectional view of a cotton-seed huller such as shown in my former patent embodying my invention. Fig. 2 is a similar view with a rotary cylinder detached. Fig. 3 is a detail sectional view of the huller side with the bearing-plate secured in position. Fig. 4 is a front elevation of one of the bearing-plates detached.

1 represents the sides of the huller; 2, the rotating cylinder secured therein, to the periphery of which the knives 3 are secured, as shown in my former patent or in other suitable manner. These knives are made of rolled wrought-iron and consist of the flat web and diverging flanges. The cylinder is provided with recesses in its convex surfaces corresponding in shape to the knives to afford the knives a firm bearing, and it will be observed that the innermost flange of each

knife is embedded in the cylinder in such a manner as to relieve the bolts securing the knives of most of the endwise drag. As above stated, these knives have a tendency to cut a groove in the huller sides, which in the continued use of the machine becomes so large as to permit the escape of whole seed, and to obviate this I cast or otherwise form a groove 4 in the huller sides having suitable beveled sides 5. (More clearly shown in Fig. 3.)

6 represents segmental plates which are beveled to conform to the beveled sides of the groove, said plates being secured in said groove by the screws 7 or other suitable means as may suggest itself to the skilled mechanic. These segmental plates are of saw-tempered steel to more effectually overcome the cutting tendency of the knives. The segmental plate is provided on one of its sides with projections 8, which project into the spaces 9, formed by the projecting cutting edges of the stationary knives 10, said knives being arranged segmentally around a portion of the periphery of the rotating cylinder 2. These projections 8 serve in addition to the screws 7 to hold the segmental plates against movement. The tongues or projections 8 extend down between the stationary knives 10 and serve the purpose of more effectually covering the huller sides, where the knives have a tendency to cut a groove into the said sides. It is obvious, of course, that these segmental plates 6 can be readily detached in the event of injury and a new one substituted without loss of time and at a minimum expense.

What I claim, and desire to secure by Letters Patent, is—

1. In a cotton-seed huller, the combination with the huller sides, of wearing-plates secured to said sides in the path of the knives.

2. In a cotton-seed huller, the combination with the stationary knives and rotating cylinder, of segmental wearing-plates secured to the huller sides in the path of the knives, and projections or tongues extending from said wearing-plates between the stationary knives.

3. The combination in a cotton-seed huller, with the huller sides, grooves formed therein having beveled sides, wearing-plates secured in said grooves, and projections or tongues extending from one side of the wearing-plates.

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Witnesses:

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