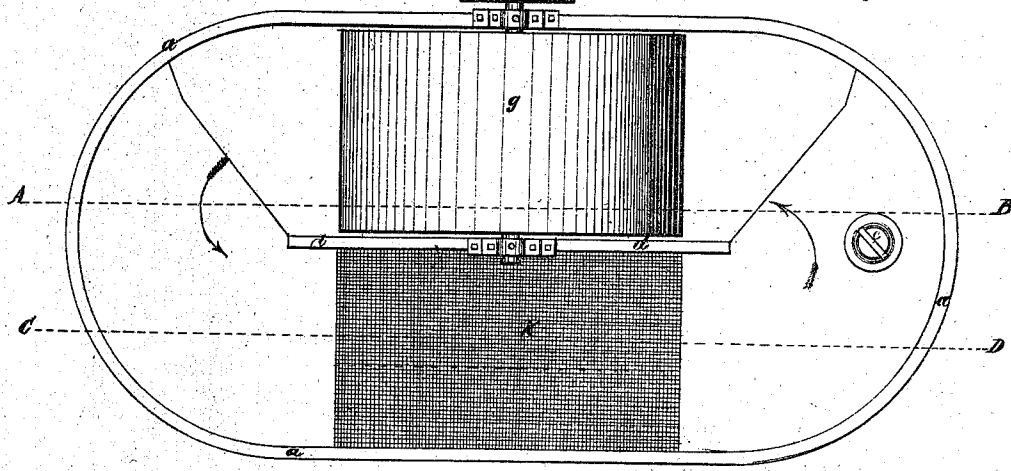


Rose and Gibson's 105728

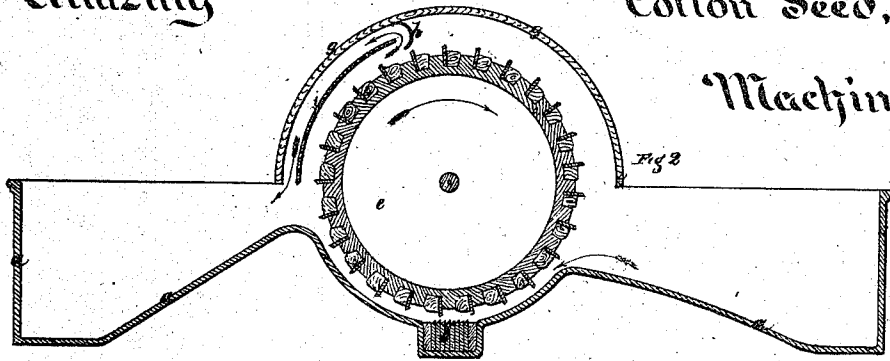


Specification

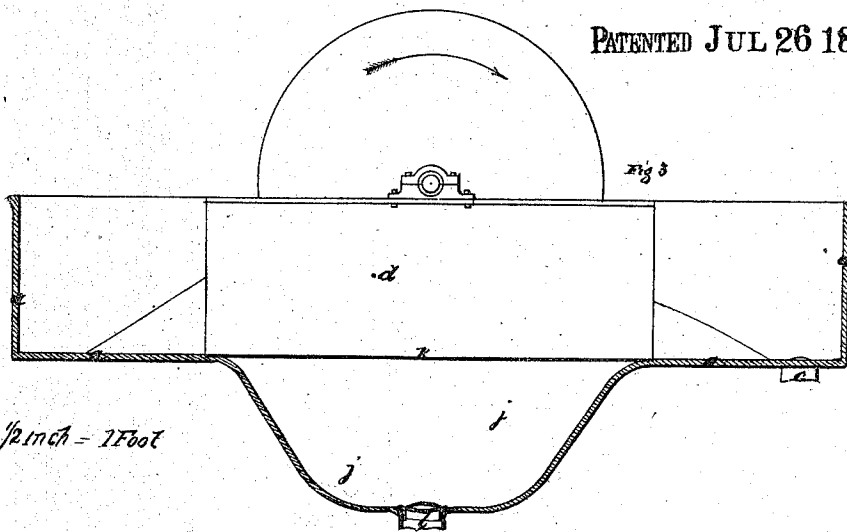


Utilizing

Cotton Seed,  
Machine.



PATENTED JUL 26 1870



Scale  $\frac{1}{2}$  inch = 1 Foot

Wm. Rogers  
Engraver  
W.A. Mops

The Drawings referred to in the Specification

Signed at Liverpool  
the twentieth day of  
May A.D. 1870.

Thomas Rose  
Robert Emerson Gibson

# United States Patent Office.

THOMAS ROSE AND ROBERT EMERSON GIBSON, OF EARLSTOWN, ENGLAND.

Letters Patent No. 105,728, dated July 26, 1870.

## IMPROVEMENT IN ENGINES FOR SEPARATING FIBER FROM HUSKS OF COTTON-SEED.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that we, THOMAS ROSE and ROBERT EMERSON GIBSON, of Earlstown, in the county of Lancaster, in that part of Her Britannic Majesty's dominions called England, have invented a certain Improved Engine for Facilitating the Separation of the Fiber from the Husks of Coated Cotton-Seed; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing, and to the figures and letters marked thereon; that is to say—

This invention relates to an engine for facilitating the separation of the fiber from the husks of coated cotton-seed, under a method or process invented by us, and for which we apply for Letters Patent simultaneously with this, and consists essentially of certain improvements upon or additions to a paper-maker's washing-engine, of such a nature that (A) the speed of the current of water therein is greatly accelerated, and (B) provision is made for collecting and withdrawing the husks by themselves.

Figure 1 is a view looking down on the engine; Figure 2, a longitudinal section at the line A B; and

Figure 3, a longitudinal section at the line C D. Like letters are marked on the same parts in all the views.

*a* denotes the containing-vessel, with stationary knives *b* and discharge-way *c*.

*d*, midfeather.

*e*, beater-roll, with driving-pulley *f*.

*g*, beater-roll cover.

All the foregoing parts are constructed substantially in the ordinary manner.

*h*, curved intercepting-plate, secured to *g*.

*i*, directing-plate, secured to *g* at the sides, and fixed at a short distance from *h*, for the purpose of forming a way or passage.

*j*, chamber or receptacle for receiving the husks.

*k*, perforated cover, through which the husks pass when the fiber is thoroughly removed from them.

*l*, discharge-way for husks.

In practice, we charge the containing-vessel with water to within three or four inches from the top, and, having arranged the roll to run at about two hundred revolutions a minute, give motion thereto.

During the rotation of the roll, a large quantity of

water is raised by it, and, as engines of this kind have been used hitherto, such water has been carried from the tail end to the feed end, and, consequently, the water and material therein have circulated at a slow speed. The curved plate *h*, in our arrangement, intercepts the water, and returns it, between the directing-plate *i* and cover *g*, to the tail end, and hence largely increases the flow.

In an engine of the size shown, with a charge of two hundred and twenty-four pounds of husk and fiber material, the roll running about two hundred revolutions per minute, the whole charge of water and material would be driven round the engine from two to three times a minute.

It will be obvious the tearing or opening action of the beater accelerates the separation of the fiber from the husks.

Instead of the plate *i* directing the water immediately to the tail end of the engine, it may be provided with a race to convey it to the opposite side of the midfeather, but this we do not consider so convenient in practice.

Having now fully described our said invention,

We claim—

1. The pocket or recess *j* in the bed of a rag-engine, in combination with the two drains or ways *c* and *l*, arranged as represented for the purposes herein set forth.

2. The perforated cover or sieve *k*, arranged as specified.

3. The intercepting-plate *h*, or its equivalent, in combination with the directing-plate *i*, or its equivalent, and with the beater-roll *e* and cover *g* of a rag-engine, adapted to serve as means for increasing the flow of water, and thereby facilitating the separation of the fiber from the husks of coated cotton-seed.

4. The perforated cover *k*, chamber *j*, and way *l*, for admitting, containing, and discharging the separated husks, in combination with the plates *h* and *i*.

In testimony whereof we have hereunto set our names in presence of two subscribing witnesses.

THOMAS ROSE.  
ROBERT EMERSON GIBSON.

Witnesses:

J. T. KING,  
P. A. MOSS.