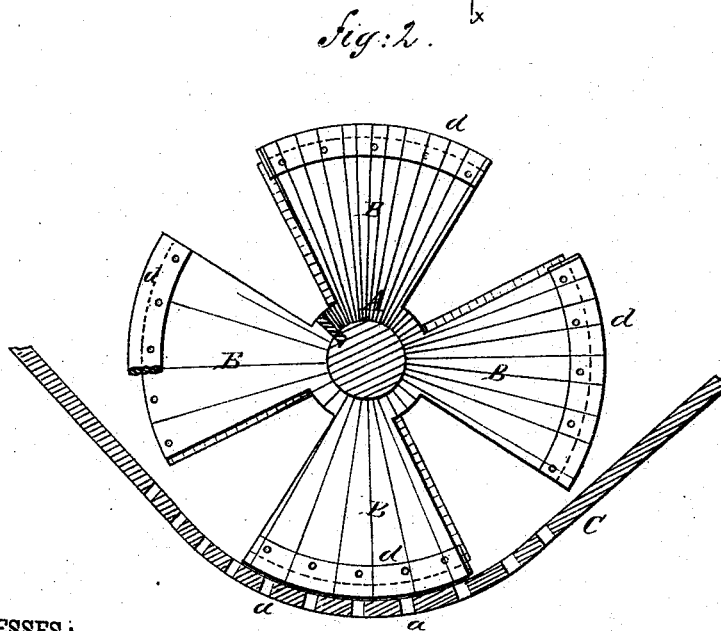
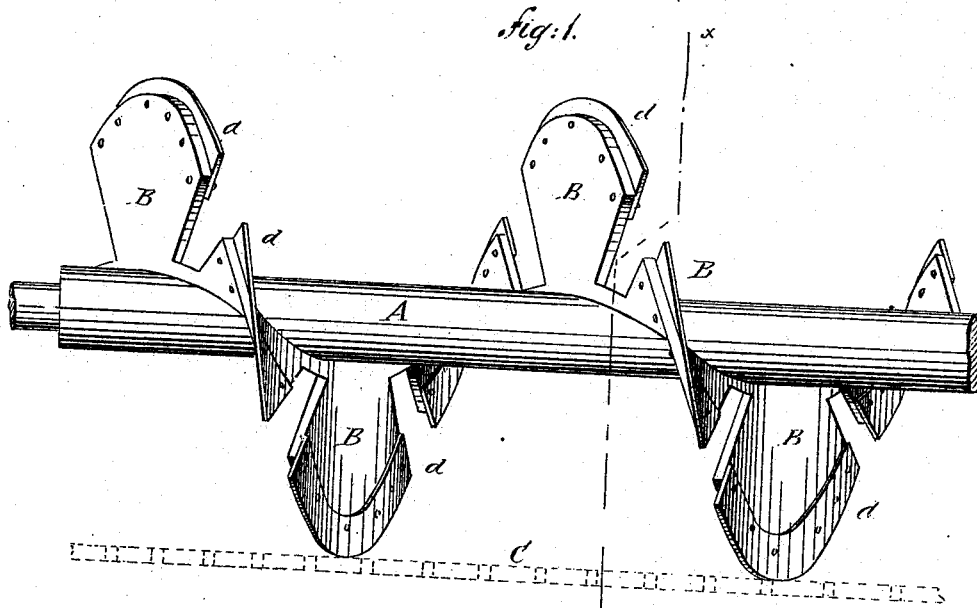


(No Model.)

J. S. FAIRLY.  
SEPARATOR AND CONVEYER.

No. 292,550.

Patented Jan. 29, 1884.



WITNESSES:

*Chas. Nida*  
*W. Sedgwick*

INVENTOR:

*J. S. Fairly*  
BY *Munn & Co*  
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

JOHN SPENCER FAIRLY, OF CHARLESTON, SOUTH CAROLINA.

## SEPARATOR AND CONVEYER.

SPECIFICATION forming part of Letters Patent No. 292,550, dated January 29, 1884.

Application filed May 3, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN S. FAIRLY, of Charleston, in the county of Charleston and State of South Carolina, have invented a new and Improved Separator and Conveyer, of which the following is a full, clear, and exact description.

My improved device is designed more especially for the separation of the kernels of cotton-seed from the hulls after passing through the huller, but may be used for the separation of other materials.

The invention consists in a screw-conveyer provided with flights in sections, armed at their outer edges with a flexible or pliable material, and combined with a perforated trough or box, as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a side elevation of the separator, and Fig. 2 is a transverse section of the same on line *x x*.

A is the shaft, and B B the flights, of the conveyer. C is the box or trough, that may be made of sheet metal or other suitable material, and is formed in the bottom, as shown in Fig. 2, with apertures *a*, of a size to allow the kernels to pass through freely. The flights B may be of wood or metal. Instead of being continuous, they are in sections, or cut out to within a short distance of the shaft to which the screw is attached. The effect of this arrangement is that the flights carry the material over or partly over the screw without

moving it continuously forward, and thus separate the heavier kernels from the light hulls, and cause the kernels to fall on and pass through the perforations in the box. In order to keep the perforations free, the flights should run close to the bottom, and to prevent rapid wear they are fitted on their edges with strips *d*, of leather or other suitable material of flexible character.

This device acts effectively for the purpose, and can be run with comparatively little power. It is much less expensive and more durable than separators of usual construction. In its operation the agitation of the materials by the flights causes the separation. The kernels, being the heavier, settle to the bottom and pass out through the perforations, which are kept open by the soft or pliable armor on the ends of the hinges into a suitable receptacle. The hulls are moved forward in the box until the end of the box is reached, where they are discharged.

The apparatus may be of any suitable length and the screw of any desired diameter.

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

In a separator and conveyer, the combination, with the shaft A and perforated trough C, of a spiral conveyer formed of the flights B, each cut out on both sides to within a short distance of the shaft, as and for the purpose specified.

JOHN SPENCER FAIRLY.

Witnesses:

THOS. H. CROFT, Jr.,  
T. W. PERRY.