(No Model.)

J. S. LEAS.

CONVEYER.

No. 244,019. Patented July 5, 1881.

Fig. 1.

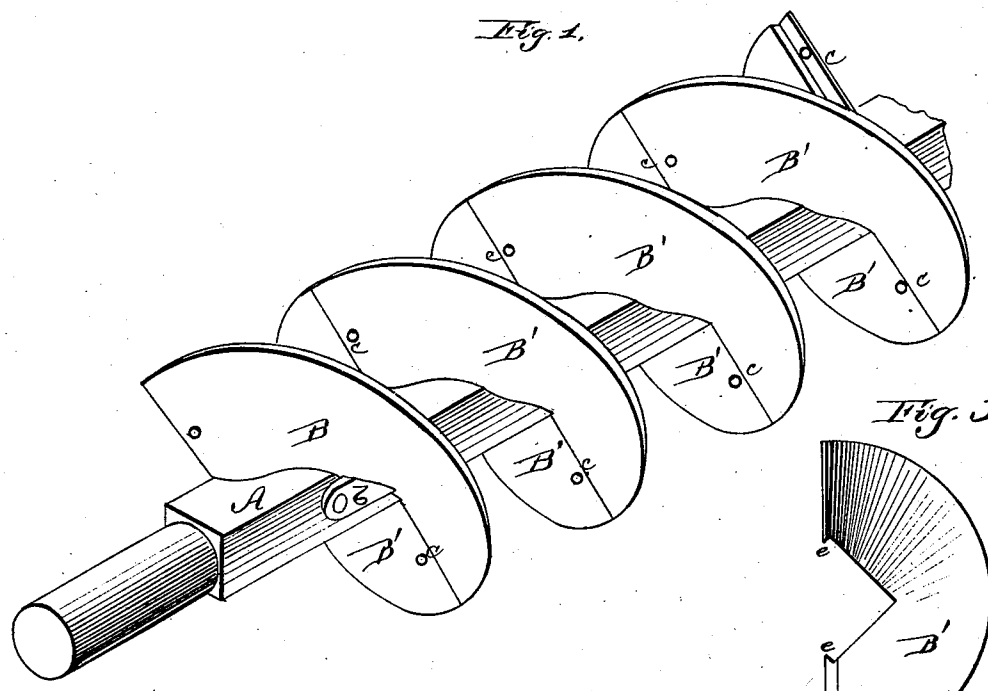
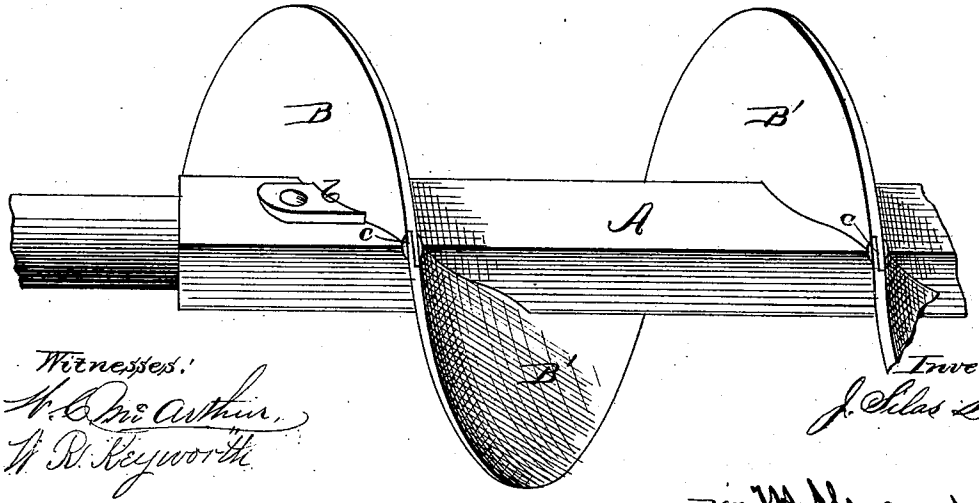


Fig. 3.

Fig. 2.



Witnesses:
W. D. McArthur.
W. R. Keyworth.

Inventor:
J. Silas Leas
Per W. Alexander
Attorney.

N. PETERS. Photo-Lithographer. Washington, D. C.

UNITED STATES PATENT OFFICE.

J. SILAS LEAS, OF ROCK ISLAND, ASSIGNOR TO THE BARNARD & LEAS MANUFACTURING COMPANY, OF MOLINE, ILLINOIS.

CONVEYER.

SPECIFICATION forming part of Letters Patent No. 244,019, dated July 5, 1881.

Application filed May 11, 1881. (No model.)

To all whom it may concern:

Be it known that I, J. SILAS LEAS, of Rock Island, in the county of Rock Island and State of Illinois, have invented certain new and useful Improvements in Conveyers; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification, in which—

Figure 1 is a perspective view of my improved conveyer, and Fig. 2 a side elevation of the same. Fig. 3 is a detail view of one of the flights.

The object of my invention is to provide a spiral or screw conveyer for grain-cleaners and other purposes to which such a device is applicable, that will combine in its method of construction strength, lightness, economy, and durability; and to these ends it consists in making the flights in sections readily detachable from the shaft, and providing angular edges on the inner sides of the sections to closely fit an angular shaft, substantially as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction.

A represents the conveyer-shaft, which is made square or angular in cross-section and of any required size and length. This shaft is provided with a series of screw-flights, B B′, the end flights, B, being provided with small lugs *b*, having holes, through which they are bolted to the shaft A. The intermediate flights, B′, are not secured to the shaft, but their ends overlap each other and are riveted or bolted together, as seen at *c* in the drawings. The inner edges of the flights B B′ are straight and formed at angles to correspond with and fit closely to the faces of the shaft. The ends of each flight should extend slightly beyond the corners of the shaft and terminate at their inner ends with projections, as seen at *e e* in Fig. 3, thus forming guides to facilitate the adjustment of the flights upon the shaft and assist in holding them in proper position.

This construction forms a very cheap and efficient conveyer, easily made and put together, of any desired length, and should any flight become broken it is readily removed and another substituted. The angular form of the shaft and the flights fitting closely to it prevents turning or twisting on the shaft, and as all the flights are bolted together and the end ones bolted to the shaft, there can be no slip endwise.

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

1. A screw or spiral conveyer having the inner sides or edges of its flight or flights formed angular to fit an angular shaft, substantially as and for the purpose set forth.

2. In a screw-conveyer, the combination of two or more flights having the inner sides thereof formed square or angular to encompass a square or angular shaft, substantially in the manner and for the purpose set forth.

3. The combination, with a central angular shaft, of one or more spiral flights having their inner edges square or angular to fit said shaft, substantially as and for the purpose set forth.

4. The combination of a series of spiral wings having their inner sides or edges formed square or angular to encompass a square or angular shaft, with the outer ends of the outside flights secured to the shaft and their inner ends overlapping, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

J. SILAS LEAS.

Witnesses:

BEN. R. TOWNDROW, Jr.,

JOHN S. GILLMORE.