

L. B. STITH.
POWER FOR COTTON-GINS.

No. 170,782.

Patented Dec. 7, 1875.

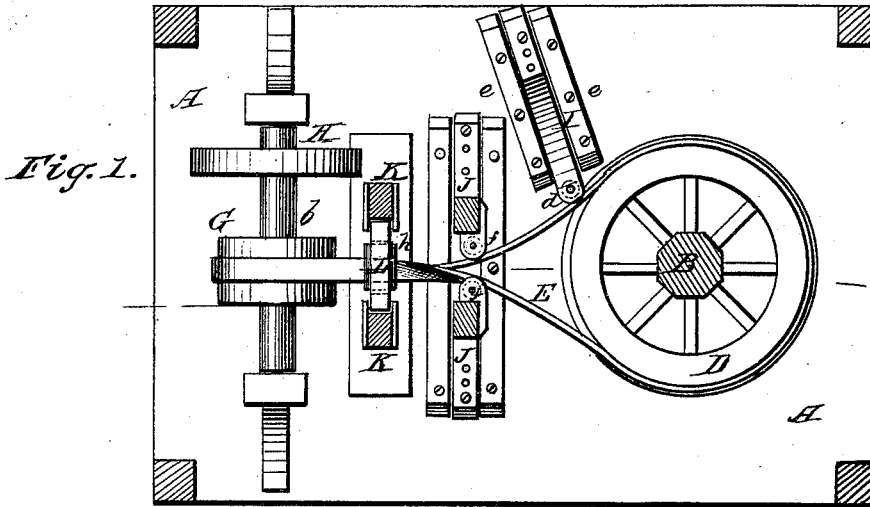


Fig. 1.

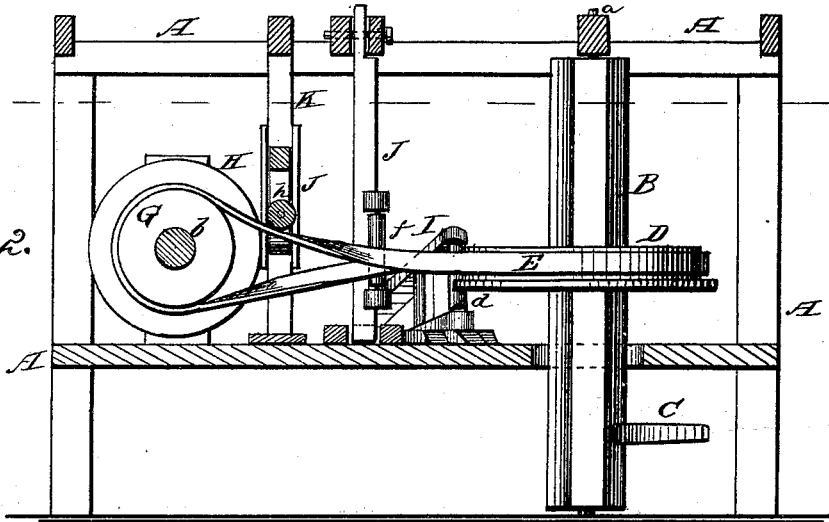


Fig. 2.

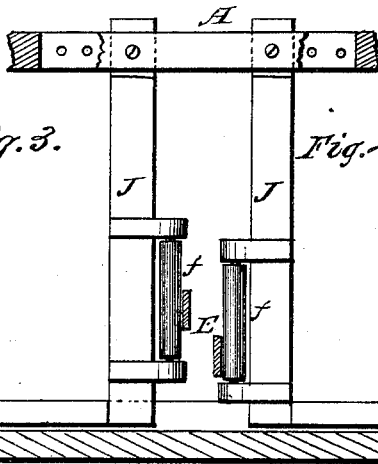


Fig. 3.

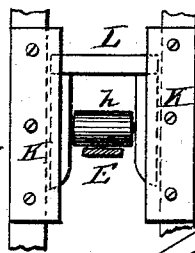


Fig. 4.

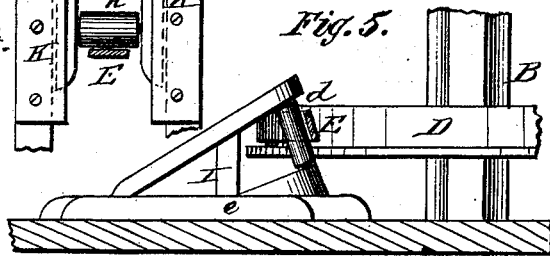


Fig. 5.

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UNITED STATES PATENT OFFICE.

LEWIS B. STITH, OF BENNETT'S × ROADS, NORTH CAROLINA.

IMPROVEMENT IN POWERS FOR COTTON-GINS.

Specification forming part of Letters Patent No. **170,782**, dated December 7, 1875; application filed October 9, 1875.

To all whom it may concern:

Be it known that I, LEWIS B. STITH, of Bennett's × Roads, in the county of Sampson and State of North Carolina, have invented certain new and useful Improvements in Power for Cotton-Gins; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The nature of my invention consists in the construction and arrangement of a horse-power for cotton-gins, as will be hereinafter more fully set forth.

In the annexed drawing, Figure 1 is a plan view of my invention. Fig. 2 is a longitudinal vertical section of the same through the line *xx* of Fig. 1. Figs. 3, 4, and 5 are detached views of parts thereof.

A represents a suitable frame-work, in which is a vertical shaft or roller, B, placed upon pivots *a a*, and provided with a sweep, C, for the attachment of the team. On the shaft or roller B is secured a large horizontal wheel or drum, D, around which is placed an endless belt, E, passing around a pulley, G, on a horizontal shaft, *b*, and on this shaft is another pulley, H, to be connected by a belt with the cotton-gin or other machinery to be driven by the horse-power. Between the wheel or drum D and the pulley G are arranged devices, as hereinafter described, for giving the belt E the proper twist and to hold it sufficiently taut.

These devices consist, first, of a roller, *d*, set at an angle, as shown in Fig. 5, and having its bearing in a frame, I, which is movable in suitable guides *ee*, and can be adjusted out and in as required for tightening the belt,

and it also guides the belt properly onto the wheel or drum D. *ff* are two vertical rollers, arranged in a stationary frame, J, on the main frame, and between which rollers both parts of the belt E pass, as shown in Fig. 1. *h* is a horizontal roller, having its bearings in a frame, L, which slides in guides K K, as seen in Fig. 4. This roller *h* guides the belt properly, and its frame by its own weight, to the vertical pulley G, and at the same time aids in holding the belt taut.

By this construction of the horse-power I dispense with all costly and complicated machinery, and, if desired, the connection may be made direct by the belt E with the driving-shaft of the gin or other machinery to be driven.

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

1. The vertically-sliding frame L and roller *h*, in combination with the guides K P, pulley G, wheel D, and belt E, constructed and arranged substantially as described, whereby the roller and frame hold the belt in proper position by their own weight, substantially as and for the purpose set forth.

2. The combination of the angling-roller *d*, adjustable frame I, vertical rollers *ff*, and horizontal roller *h* in the vertically-sliding frame L, all interposed between the drum D and pulley G, to operate upon the endless belt E, for the purposes herein set forth.

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

LEWIS B. STITH.

Witnesses:

WM. B. UPPERMAN,
C. H. WATSON.