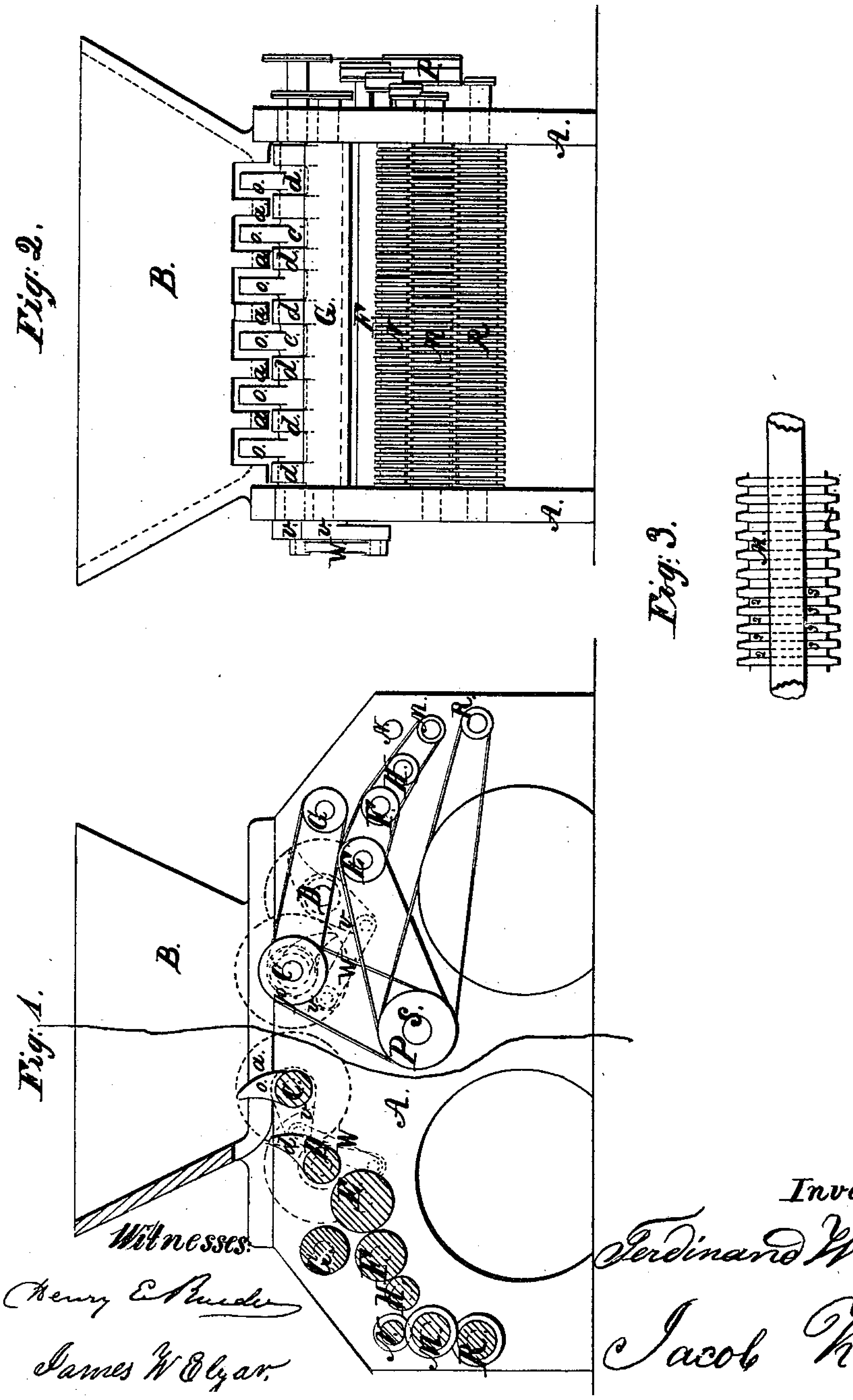
F. WUTERICH & J. KOEBER.

COTTON GIN.

No. 26,065. Patented Nov. 8, 1859.



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UNITED STATES PATENT OFFICE.

F. WUTERICH AND J. KOERBER, OF NEW YORK, N. Y.

IMPROVEMENT IN COTTON-GINS.

Specification forming part of Letters Patent No. **26,065**, dated November 8, 1859.

To all whom it may concern:

Be it known that we, FERDINAND WUTERICH and JACOB KOERBER, both of New York, in the county and State of New York, have invented a new and Improved Cotton-Gin; and we hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure I represents one half the longitudinal section and the other half an outside view of the machine. Fig. II shows an end view of the machine.

A is the frame of the machine, provided with suitable bearings for the different shafts and rollers, and supports on the top the feeding-hopper B. The bottom of this hopper is divided by a number of strips or bars, *a*, longitudinally.

C is a shaft, provided with fingers or points *o*, which fit into the open spaces in the bottom of the hopper between the bars *a*. This shaft obtains a rotary motion from the main shaft S of the machine through the pulley P, fast on said main shaft S, connected with the pulley *p*, fast on the finger-shaft C.

D is a second finger-shaft, provided with points or fingers *d*, so arranged that the same pass between the fingers *o* on the shaft C. On the outside of the frame A cranks *v* are placed on the shafts C and D, (shown in dotted lines,) which are connected by a rod, *w*, and so arranged that while the shaft C makes one revolution through its connection with the main shaft S, as above described, the shaft D will make only half a revolution back and forth, or a rocking motion. By the revolution of the shaft C the fingers *o*, while passing between the bars *a*, take the unginned cotton out off the hopper and carry the same round with them until met by the fingers *d* of the shaft D, which take then hold of the cotton, strip the same of the fingers *o*, and carry the same upon the roller E, from which the cotton passes on the roller F and between the roller G, which prevents the cotton from being carried back again with the fingers *d* in their backward motion, and is carried then afterward over the roller H between the bite-rollers N and M. The rollers E, F, and H, which form the guide-rollers for the unginned cotton between the finger-shaft D and the bite-rollers N and M, as well as the lower bite-roller, M, are worked by means of belts from the pulley P on the end of the main shaft S, and the roller G receives motion by means of a belt from the pulley *p*, fast on the end of the shaft C. The bite-rollers N and M are grooved circumferentially, the projecting parts of one roller fitting into recesses or grooves in the other roller, by which means the surface is considerably increased, as well as a stronger bite between the rollers obtained, so as to pull the cotton easily from the seed. The lower bite-roller, M, is made of circular pieces of leather fastened on a shaft, one piece, 2, being the thickness and diameter of the groove part, and the next piece, 3, being the thickness, shape, and diameter of the raised part between the grooves, as represented in an enlarged view in Fig. III. The roller N is made of a hard substance—such as wood or metal—and rests upon the leather roller M, receiving motion only from the friction caused by its contact with the roller M. Below the roller M a roller, R, is situated, worked by a belt from the pulley P, and having its circumference grooved to correspond and fit into the grooves in the roller M. The unginned cotton, after being brought from the roller H between the rollers M and N, passes through the same, while the seed, on account of its size, is prevented passing through, and is gradually cleared of the cotton adhering to the same, and fall then to the bottom. The ginned cotton coming from the roller M is then taken hold of by the roller R and delivered into a convenient receptacle.

We do not claim the employment or use of grooved rollers, as the same have been patented by L. T. Chichester, February 9, 1858; but

What we claim as our invention, and desire to secure by Letters Patent, is—

The arrangement of the finger-shafts C and D, operating and constructed in the manner described, and acting together, so that while the fingers of the shaft C during its revolution pull the cotton out of the hopper the fingers of the shaft D take the cotton from the former and deposit the same upon the guiding-rollers, substantially as specified.

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