

(No Model.)

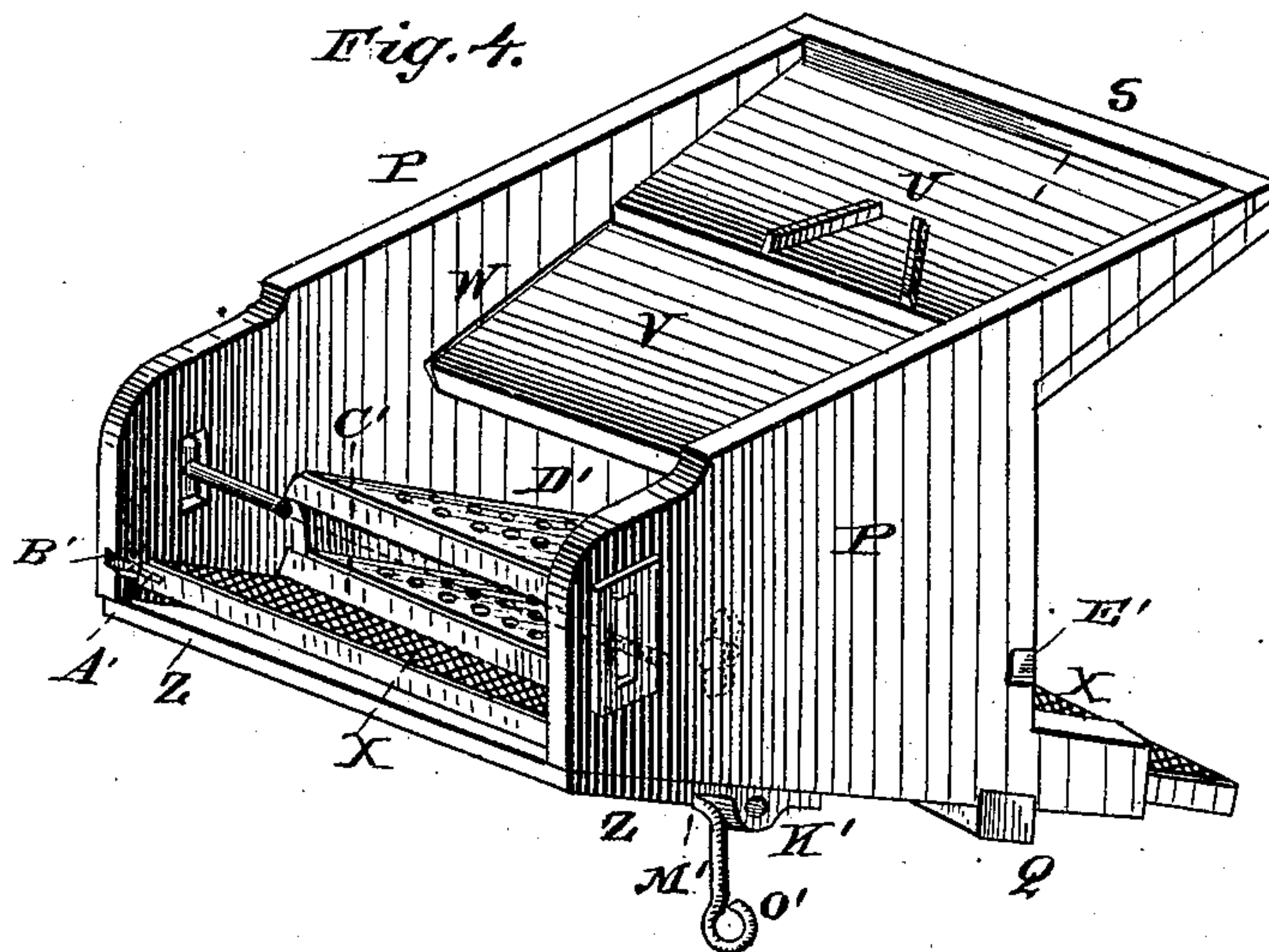
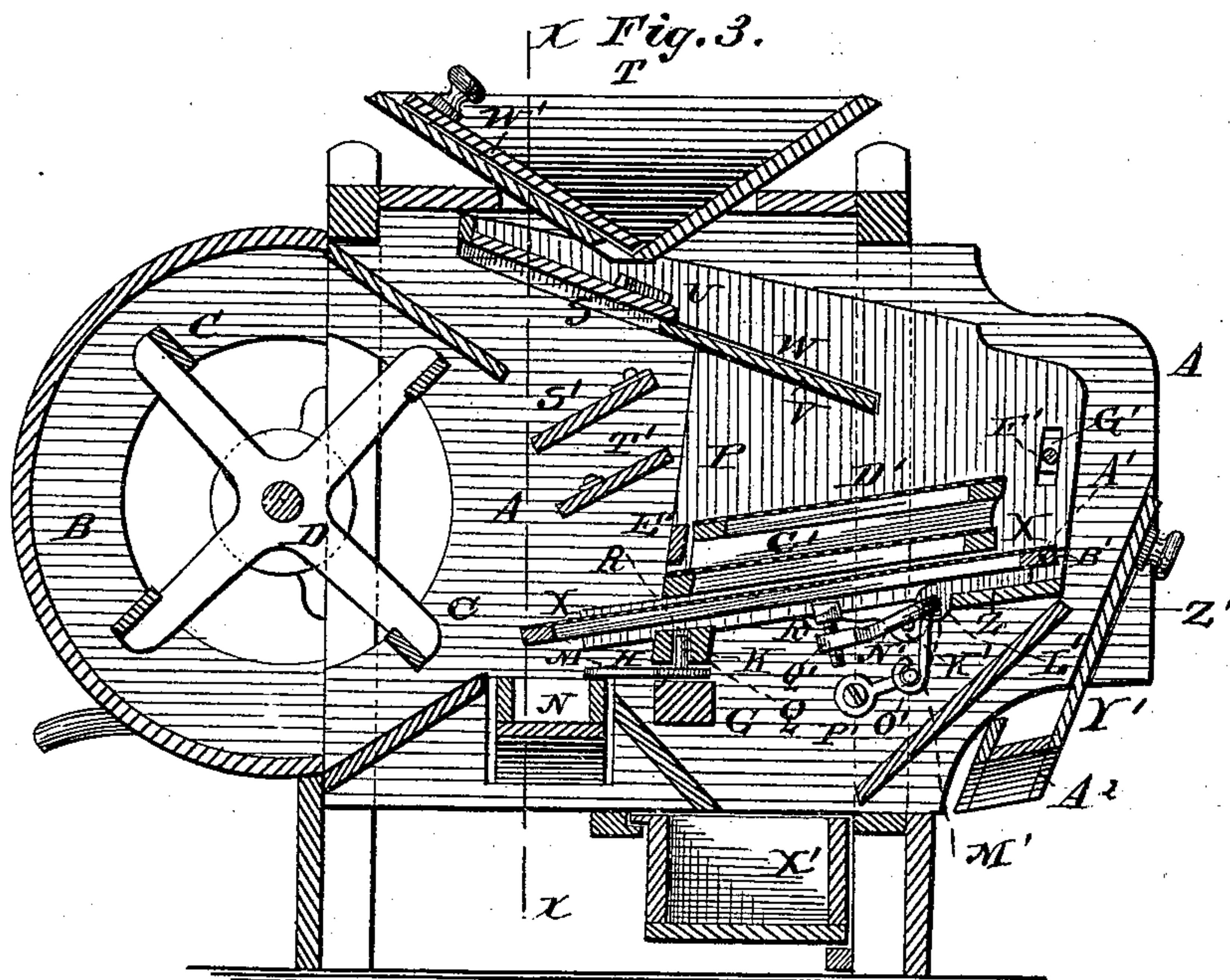
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C. C. EDDY & A. A. LEVAN.

FANNING MILL.

No. 254,469.

Patented Mar. 7, 1882.



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Fig. 5.

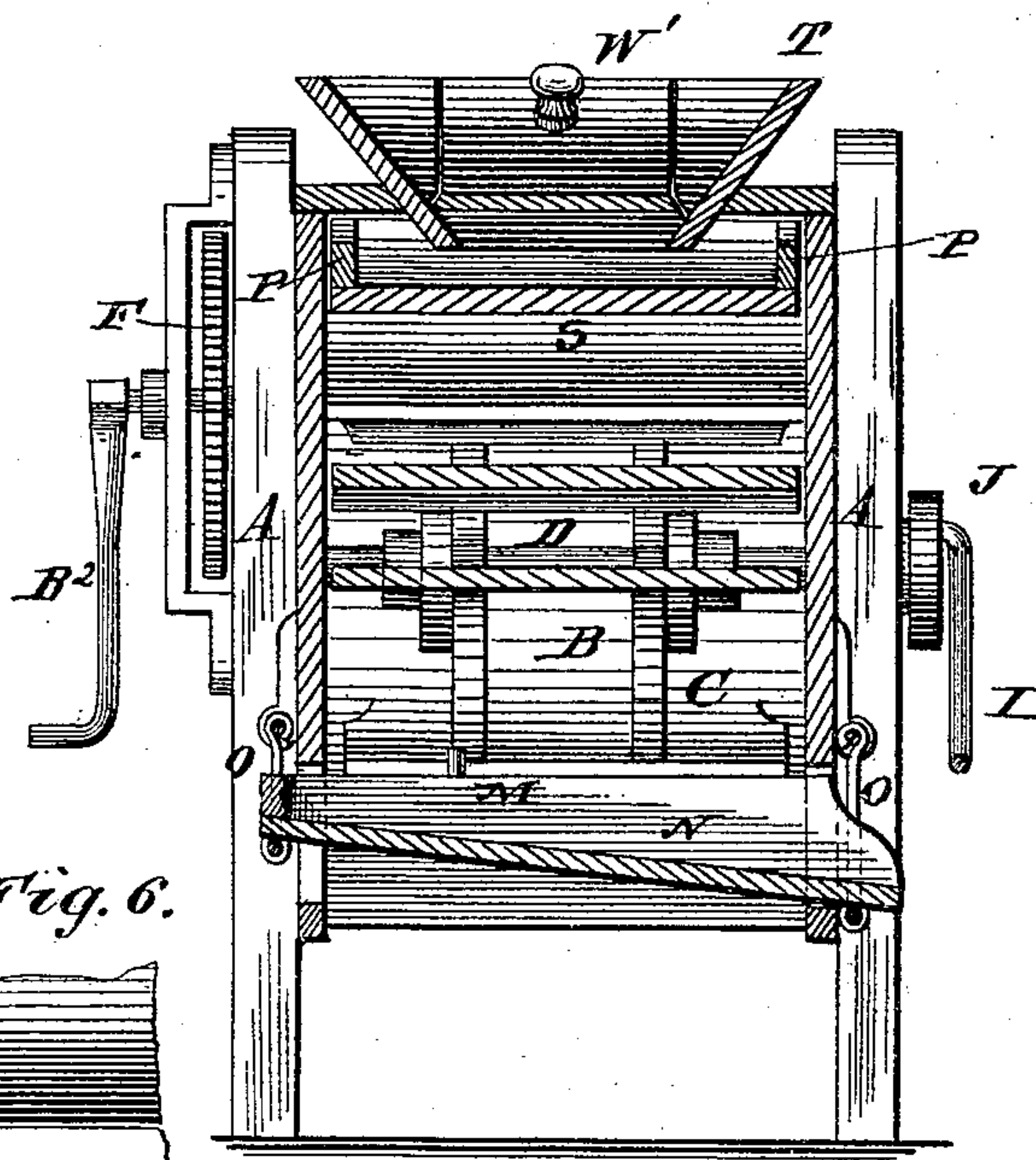


Fig. 6.

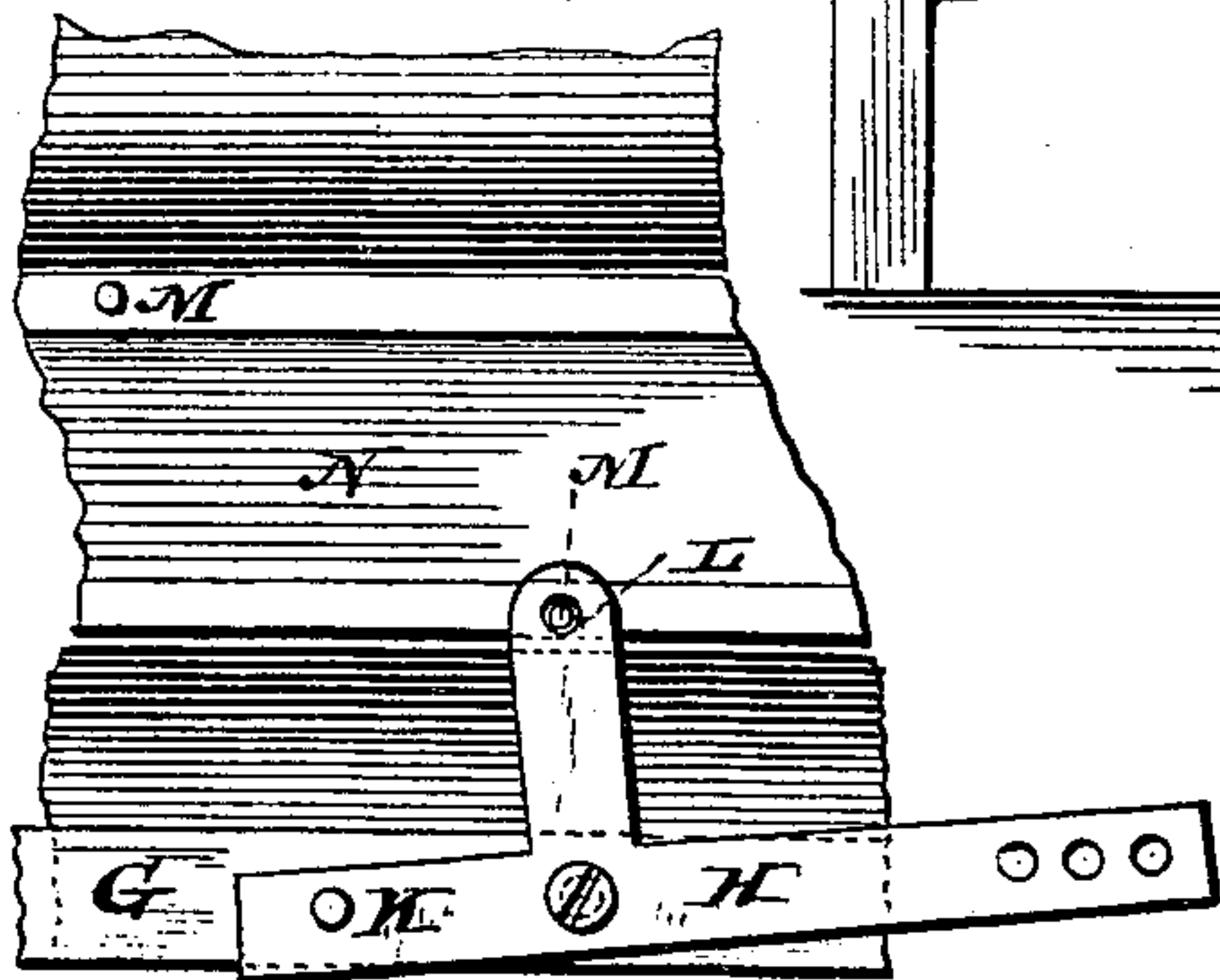
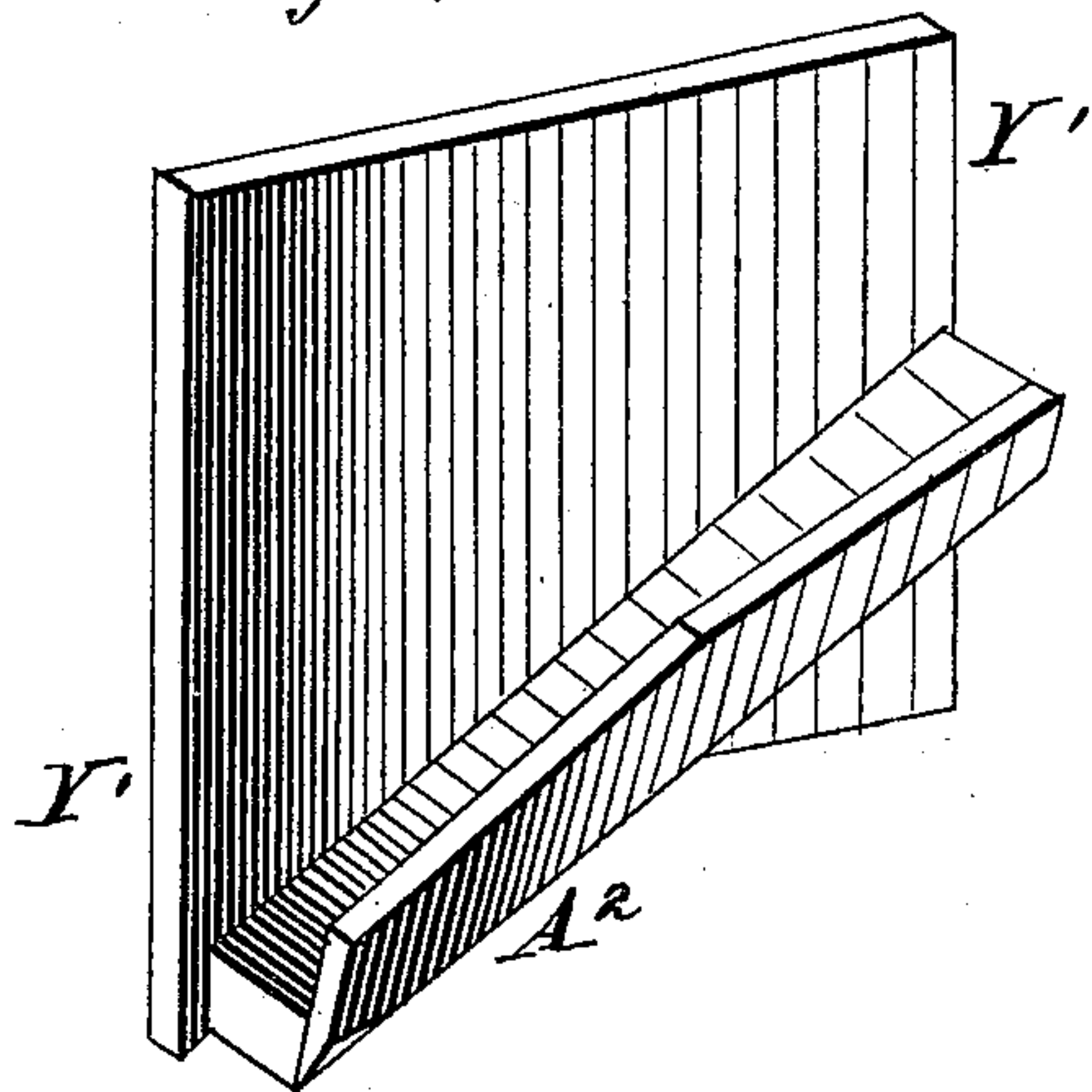


Fig. 7.



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UNITED STATES PATENT OFFICE.

CARROLL C. EDDY AND AMBROSE A. LEVAN, OF PEKIN, NEW YORK.

FANNING-MILL.

SPECIFICATION forming part of Letters Patent No. 254,469, dated March 7, 1882.

Application filed December 21, 1881. (No model.)

To all whom it may concern:

Be it known that we, CARROLL C. EDDY and AMBROSE A. LEVAN, of Pekin, in the county of Niagara and State of New York, have invented certain new and useful Improvements in Fanning-Mills; and we do hereby declare that the following is a full, clear, and exact description of the invention, 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, which form a part of this specification.

Figure 1 is a side view of our improved fanning-mill. Fig. 2 is a view of the opposite side. Fig. 3 is a longitudinal vertical sectional view. Fig. 4 is a perspective view of the shoe detached. Fig. 5 is a vertical sectional view on the line *x x*, Fig. 3, looking toward the fan-chamber. Fig. 6 is a plan view of the T-lever and adjacent parts, and Fig. 7 is a perspective view of the tail-board detached.

Corresponding parts in the several figures are denoted by like letters of reference.

This invention relates to mills for fanning and cleaning grain; and it consists in certain improvements in the construction of the same, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings hereto annexed, A represents the case or frame, constructed, in the usual manner, with the fan-chamber B, in which the fan C is mounted upon a transverse shaft, D. The latter is provided at one end with a pinion, E, engaging the gear-wheel F, by which the machine is operated.

G is a cross-piece, secured transversely in the frame A to support a T-lever, H, which is pivoted upon said cross-piece, as shown. One arm of said lever projects through an opening in the side of the casing, and is connected by a hinge-joint, H³, with the lower end of a rod or pitman, I, the upper or front end of which is connected to a disk or wheel, J, upon the end of fan-shaft D, so as to receive a reciprocating motion from said shaft. The other arm of said lever has an upward-projecting stud, K, by which it is connected to the shoe, as will be hereinafter described; and the third arm has a slot or opening, L, secured upon a stud, M, upon the side of the spout or chute N, which is hung in swinging bails O, hinged upon the sides of the casing, as shown, said sides being provided

with openings to accommodate the ends of the chute. The latter is constructed with an inclined bottom, and it may be reversed, so as to discharge the grain on either side of the machine, each side of the chute being provided with a stud, M, for connection with the T-lever, by which a transverse reciprocating motion is imparted to said chute.

The shoe consists of suitably-connected side pieces, P P, having a brace, Q, provided with an opening, R, upon its under side to receive the stud K of the T-lever H, by which the shoe is reciprocated. The top S of the shoe, which receives the grain from the hopper or feeder T, which is arranged on top of the casing, is provided with diverging ribs U, serving to spread the grain, and it has an extension, V, sliding in grooves W in the sides P, which may be adjusted as desired, so that the grain shall drop upon the sieves near the front or rear ends, as required.

X is the fine sieve, which rests upon the cross pieces or braces Q and Z, and is provided with laterally-projecting lugs or studs A', which enter grooves B' in the sides P, so as to retain said sieve in position. The upper coarse sieves are arranged in a set or gang suitably connected, the lower one, C', projecting in front of the others, D', so as to enter under a cross-brace, E', connecting the sides P. The latter are connected by a screw-threaded rod, F', having a nut, G', which, when tightened, serves to clamp and securely hold the sieves. The nut G' may be reached and operated through a hand-hole, H', in the side of casing A.

The rear end of the shoe is supported by means of hooks I', pivoted to the sides of the casing, and having their ends, which project inward through openings J', adjusted in boxes or bearings K' upon the under side of the shoe. When the shoe is reciprocated its rear end receives from the hooks I' a swinging motion, which greatly assists in cleaning the grain.

The cross-piece Z of the shoe has bearings L', for a short rock-shaft, M', provided at its ends with cranks or levers N' O', the latter, O', of which is connected with a lever, P', pivoted upon the inside of casing A. The inner arm, N', of shaft M' has a threaded opening, Q', in which a hammer or knocker, R', is adjustable, as shown. It will be seen that when the shoe is reciprocated the hammer R', by the opera-

tion of the rock-shaft, is caused to strike the under side of the fine sieve, thus preventing it, or the coarse sieves which are supported upon it, from being clogged or choked by broken grain or impurities of any kind.

Pivoted between the sides of casing A is a board, S', the front or free end of which may be adjusted so as to connect with the rear top end of the fan case; or it may be lowered so as to direct the blast. A similarly pivoted board, T', is arranged below board S', with one of its pivots projecting through the side of the casing, and provided with a handle, U', and pointer V', so as to be conveniently adjusted, and indicate to the operator the position of the board.

The hopper or feeder T is provided with a slide, W', for regulating the feed or cutting it off entirely, as required.

The casing has a drawer, X', to receive the dust passing through the fine sieve, and a tail-board, Y', arranged in grooves Z' at the end of the casing, is provided with a chute, A².

The shaft of the main gear-wheel F has a crank, B², by which the machine may be operated.

The operation of our improved fanning-mill will be readily understood from the foregoing description, taken in connection with the drawings hereto annexed. It is simple, convenient, and easily manipulated.

Having thus described our invention, we claim and desire to secure by Letters Patent of the United States—

1. The combination of the casing A, the reversible chute or spout N, having studs M M, the T-lever H, having slot L, and suitable operating mechanism, substantially as and for the purpose set forth.

2. The combination of the casing A, the re-

versible chute or spout N, the shoe, the T-lever H, and suitable operating mechanism, all constructed and arranged substantially as herein set forth.

3. The combination, with the shoe having a cross-piece, E', of a set or gang of sieves suitably secured or connected to each other, the lower one extending beyond the others, so as to pass under the said cross-piece E', which thereby serves to hold the entire set in position, as set forth.

4. The combination of the shoe having cross-piece E' and slots in which a screw-threaded rod, F', having a tightening-nut, G', is vertically adjustable, with the set or gang of sieves C' D', which are suitably secured together, the lower one extending under the cross-piece E', which serves to hold the front end of said set of sieves in position, their rear ends being clamped between the sides of the shoe by means of the rod F' and nut G', as set forth.

5. The combination, with the shoe, of the rock-shaft, suitable bearings therefor, the arms or cranks N' O', lever P', pivoted upon the side of the casing, and a hammer on crank N', adapted to strike the sieves, as set forth.

6. The combination, with the shoe, of the rock-shaft M' and crank N', provided with a threaded opening, Q', and an adjustable screw-threaded hammer, R', and mechanism for operating said rock-shaft, as set forth.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

CARROLL C. EDDY.
AMBROSE A. LEVAN.

Witnesses:

EDWARD H. COX,
CLINTON A. SAGE.