

(No Model.)

T. R. ROSIER.  
FANNING MILL.

No. 282,568.

Patented Aug. 7, 1883.

Fig. 1

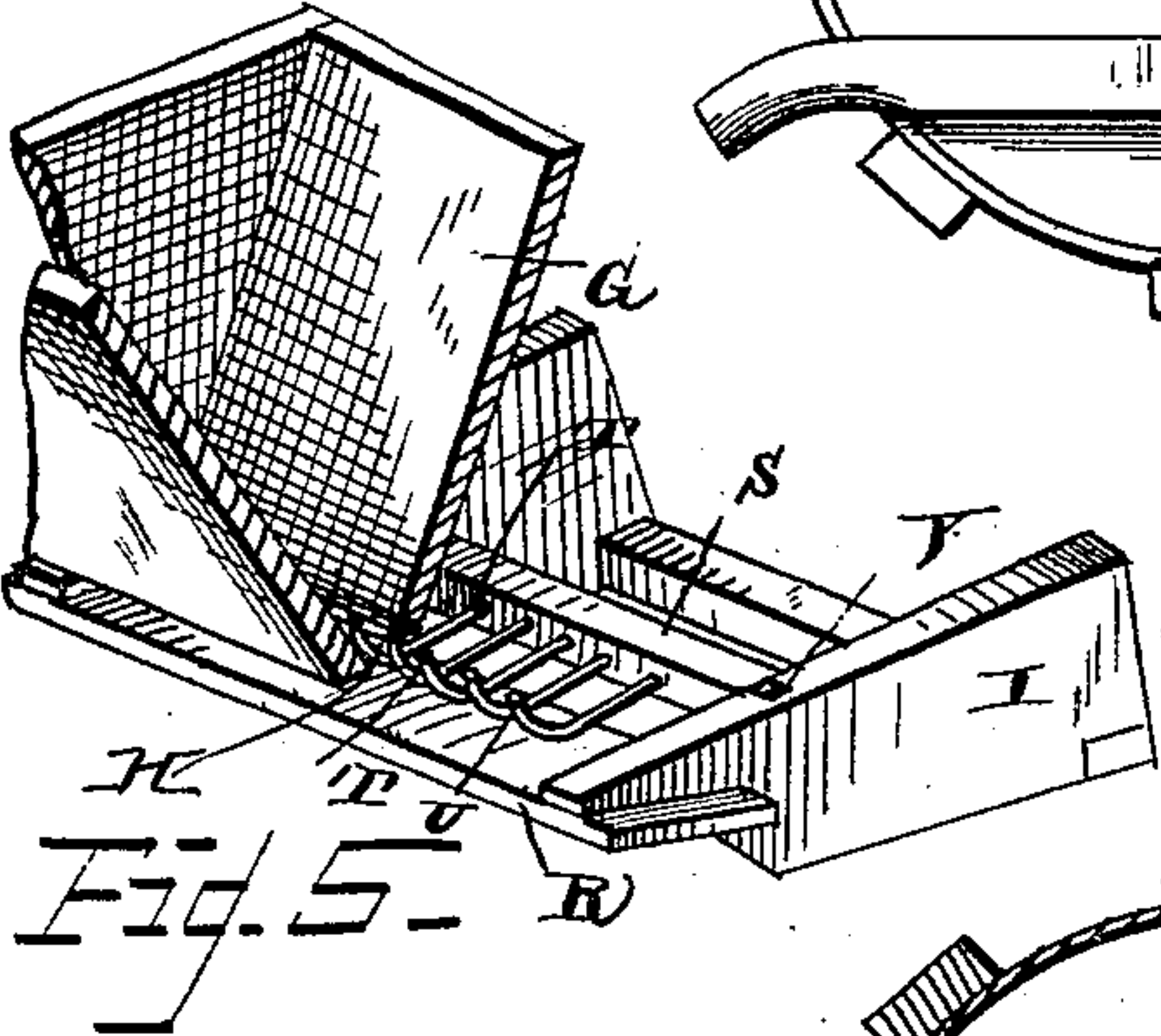
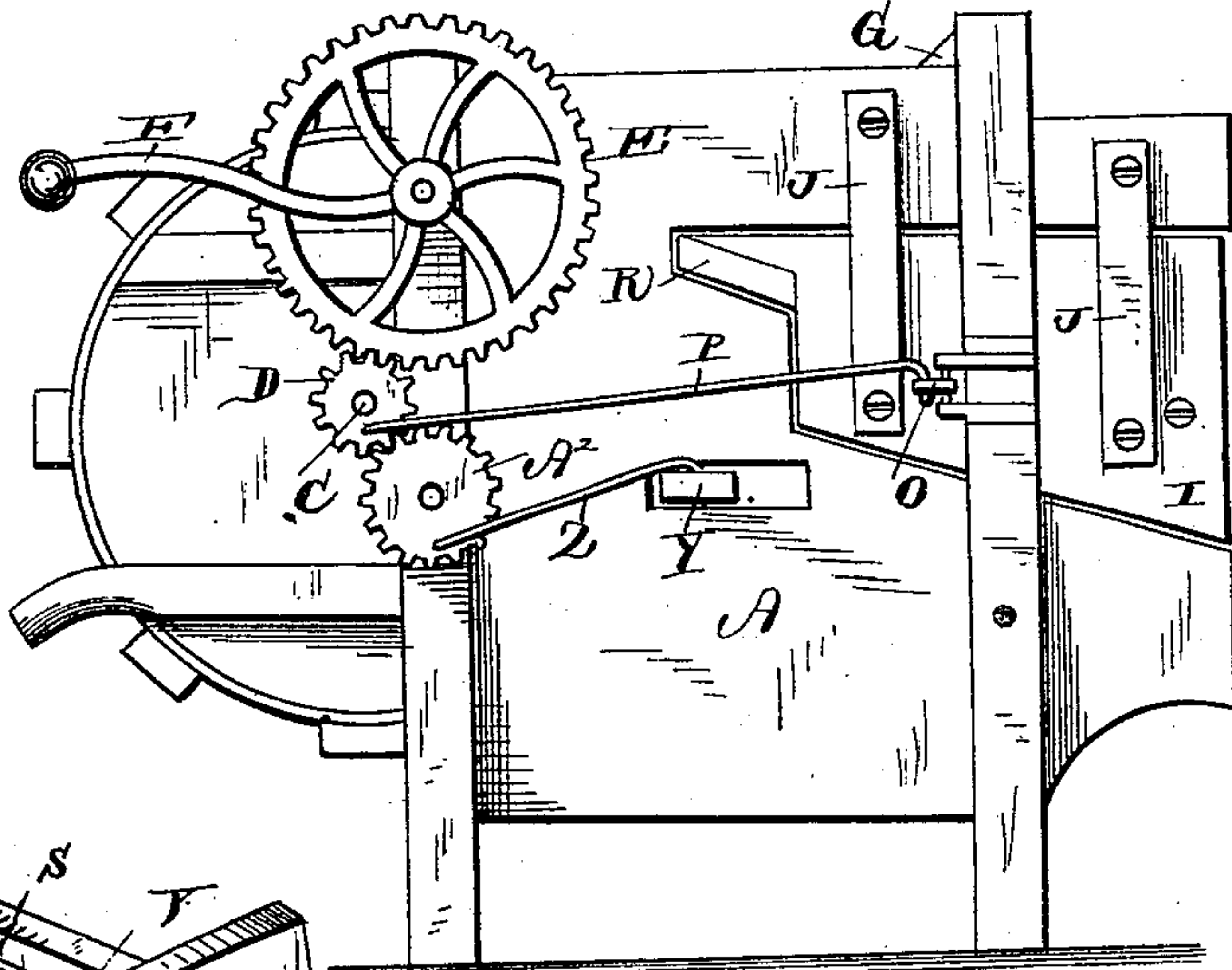


Fig. 2

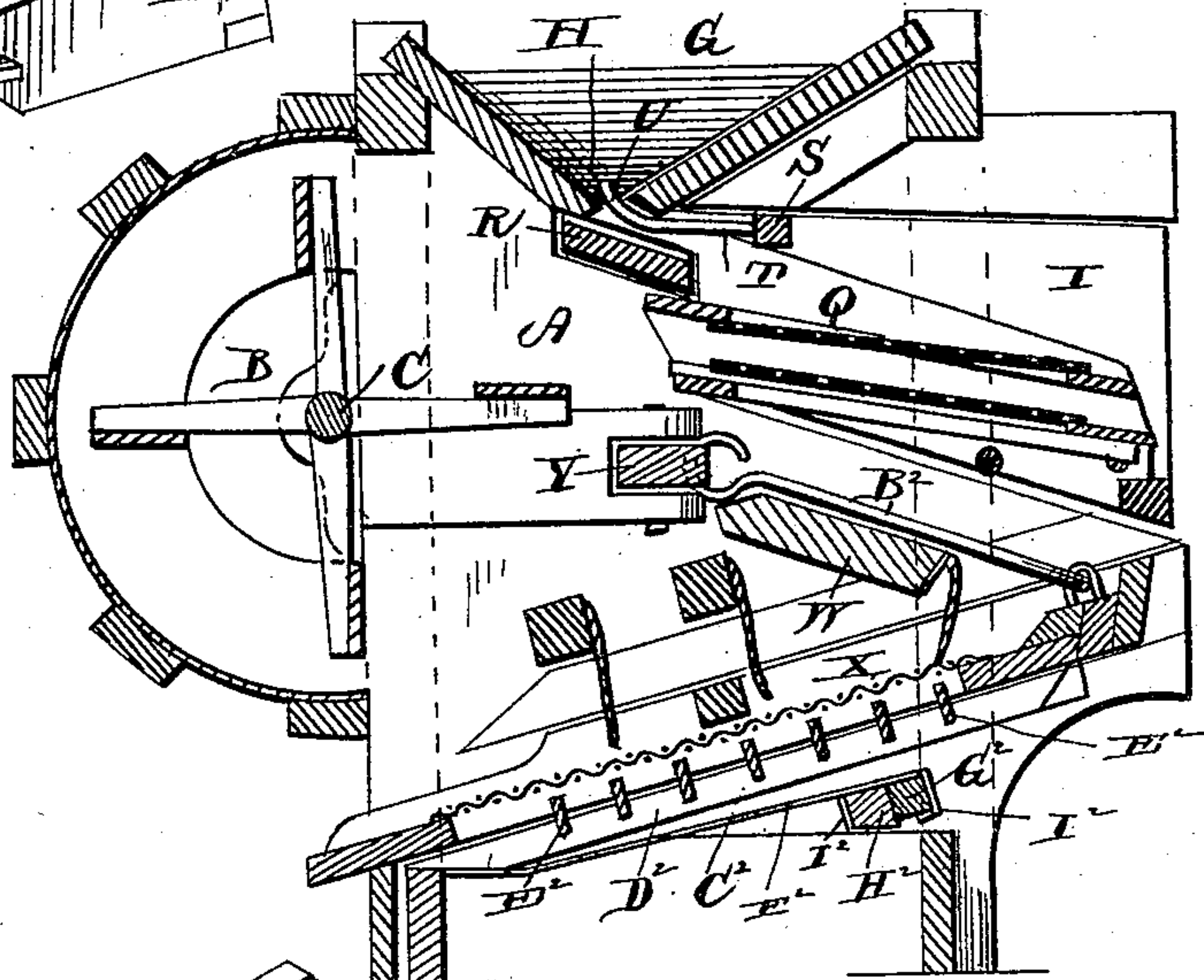
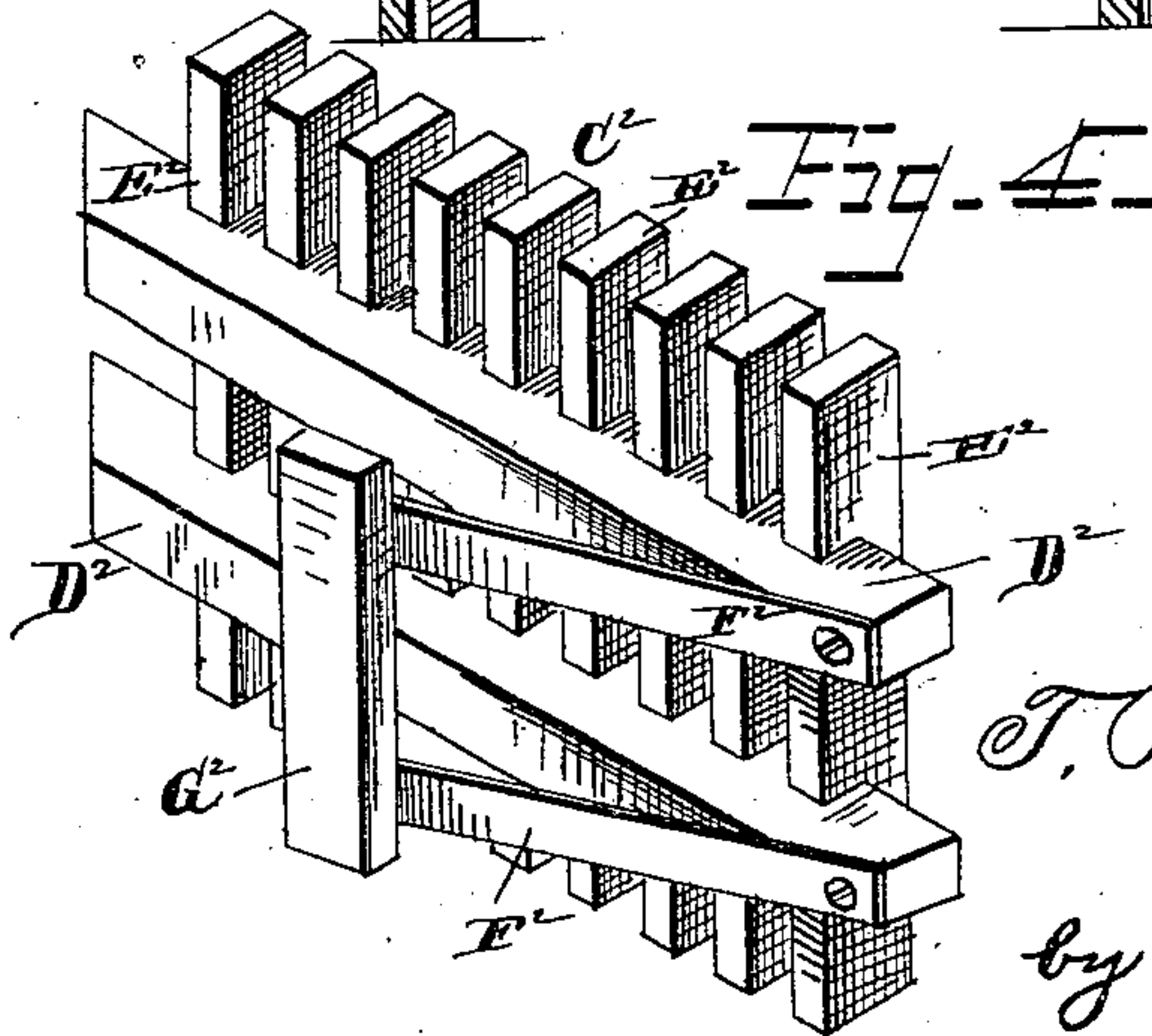
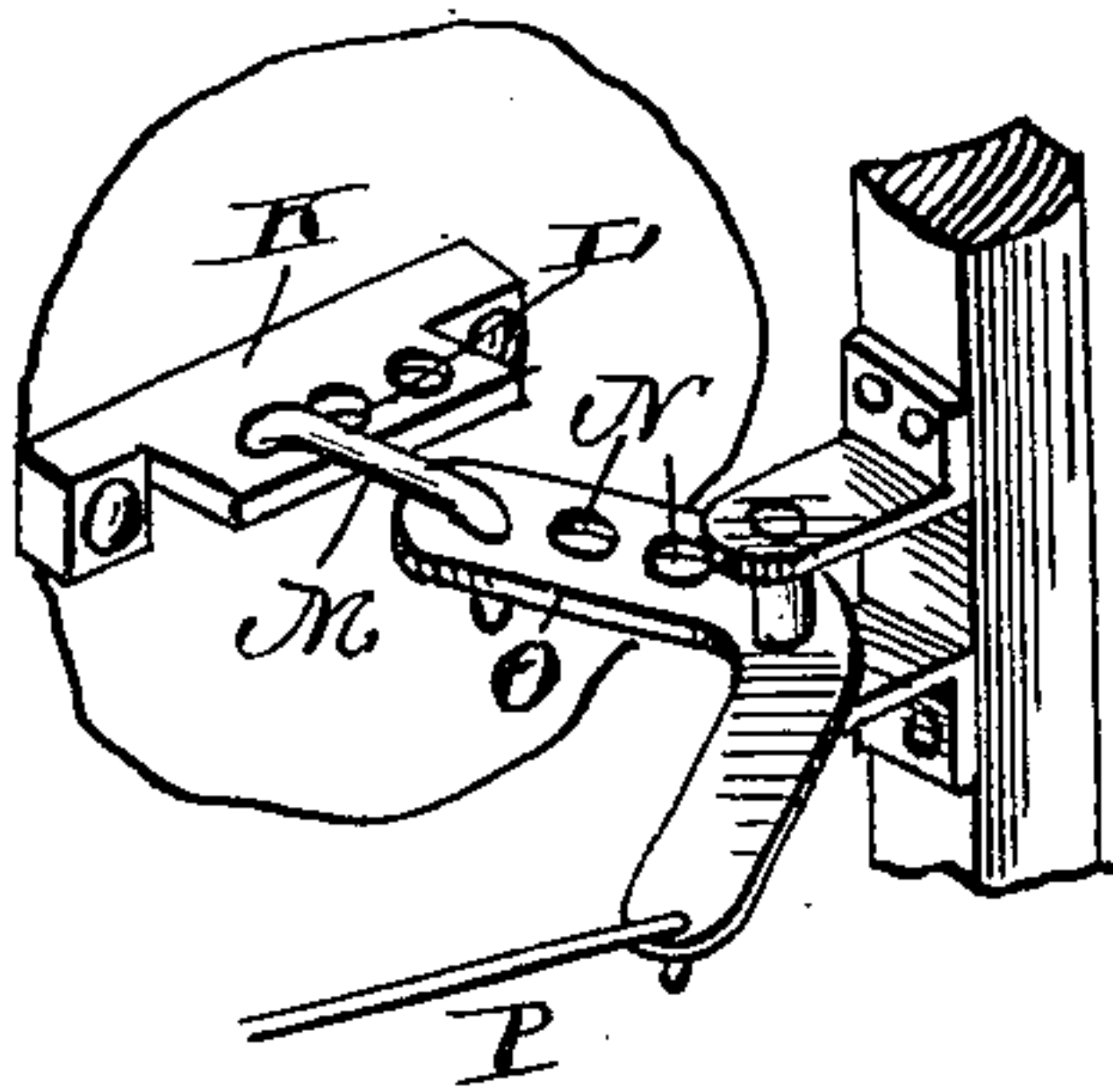


Fig. 3



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# UNITED STATES PATENT OFFICE.

THOMAS R. ROSIER, OF SAN JOSÉ, CALIFORNIA.

## FANNING-MILL.

SPECIFICATION forming part of Letters Patent No. 282,568, dated August 7, 1883.

Application filed April 26, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS R. ROSIER, a citizen of the United States, residing at San José, in the county of Santa Clara and State of California, have invented a new and useful Fanning-Mill, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to fanning-mills; and its object is to provide a mill possessing superior advantages in point of simplicity, inexpensiveness, and general efficiency.

In the drawings, Figure 1 is a side elevation of my improved fanning-mill. Fig. 2 is a vertical longitudinal sectional view of the same. Fig. 3 is a detail view, in perspective, of the adjustable connection between the shoe and its operating-rod. Fig. 4 is a detail perspective view of the bottom of the screen-cleaning rack. Fig. 5 is a detail perspective view, partly in section, of the feed-regulating mechanism at the bottom of the hopper.

Referring to the drawings, A designates the casing, which may be of any suitable construction, and has the fan B hung in one end on a transverse shaft, C, at the outer end of which is fixed a gear-wheel, D, that meshes with a larger operating gear-wheel, E, that is journaled at the side of the casing, and is provided with a crank or handle, F.

In the top of the casing A is arranged a hopper, G, having a narrow open bottom, H, as shown. At the end of the casing opposite from the fan, and under the hopper, is hung the shoe I, which is supported by pivoted hangers J, to admit of its vibrating or shaking motion. To effect the vibration of the shoe it is provided at its side with a laterally-projecting plate, K, having a series of perforations, L, in any one of which is received one end of a U-shaped connecting-link, M, that has its other end adjusted in any one of a series of perforations, N, in one arm of a bell-crank lever, O, that is fulcrumed at the side of the casing. A pitman, P, extends from the gear-wheel D, and is pivotally connected to the outer end of the lever O, so that the latter is operated as the fan revolves. Within the shoe is arranged a gang of sieves, Q, on which the grain falls from the hopper, and the shoe is provided with a board or platform, R,

at its top end, that projects under the open bottom of the hopper.

To regulate the flow of the grain from the bottom of the hopper onto the platform R a transverse bar, S, is journaled between the sides of the shoe, just in rear of the said platform, and is provided with a series of projecting teeth, T, extending over the platform and provided with upturned or curved outer ends, U. These ends U project up into the open bottom of the hopper and effect an even and steady flow of the grain from the hopper.

An inclined board or platform, W, is arranged under the shoe, to receive the grain from the latter and allow it to pass onto the lower and finer screen, X, which is arranged in an oppositely-inclined plane to the shoe, and is arranged to reciprocate between the sides of the casing. The operation of the screen X is accomplished by means of a transverse rock-lever, Y, that is pivoted at one end to the inside of the casing and projects through the side of the casing A, and is connected by a pitman, Z, with a gear-wheel, A<sup>2</sup>, journaled at the side of the casing and meshing with the gear-wheel D, from which it derives its motion. The lever Y is connected with the screen X by means of a pivoted rod, B<sup>2</sup>.

By adjusting the link M in the perforations N and L, the shake of the shoe can be altered and regulated without changing the relative shake of the screen X.

The foregoing construction and arrangement of parts are not new in this class of machines, and are herein illustrated and described for the purpose of showing the relative arrangement of all the parts of a fanning-mill in connection with my improved cleaning-rack, which constitutes my present invention, and which I will now proceed to describe.

C<sup>2</sup> is a rack that is arranged under the screen X, and comprises longitudinal parallel side beams, D<sup>2</sup> D<sup>2</sup>, that support cross-pieces E<sup>2</sup>, having their edges in contact with the under side of the screen X. This rack is supported by two flat springs, F<sup>2</sup> F<sup>2</sup>, that extend from the lower end of the said rack to about its center, and are connected at their free ends by a cross-piece, G<sup>2</sup>, that is secured to a transverse beam, H<sup>2</sup>, in the bottom of the casing by means of an embracing loop or collar, I<sup>2</sup>, as

shown. As the screen reciprocates it is scraped by the strips or cross-pieces  $E^2$ , to keep it clean and prevent clogging, while the springs  $F^2$  cause the rack to readily give to the movement of the screen.

In lieu of the strips  $E^2$ , rollers may be journaled in the longitudinal beams  $D^2$  and come against the under side of the screen. This form causes less friction of the rack with the screen and thoroughly effects the cleaning of the latter.

The operation and advantages of my invention are obvious. It is very simple and inexpensive in construction, and is efficient in operation.

I claim as my invention—

1. The combination, with the screen, of the cleaning-rack arranged under the same, the

flat springs extending under the rack to near its center, and the cross-piece to which the springs are connected, as set forth.

2. The combination, with the screen, of the herein-described cleaning-rack arranged under the same, and comprising the longitudinal side pieces and suitable cross-strips, the two flat springs secured to the longitudinal side pieces, and extending under the same to near their center, and the cross-beam of the casing, as set forth.

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

THOMAS R. ROSIER.

Witnesses:

W. C. KENNEDY,  
H. A. DE LACY.