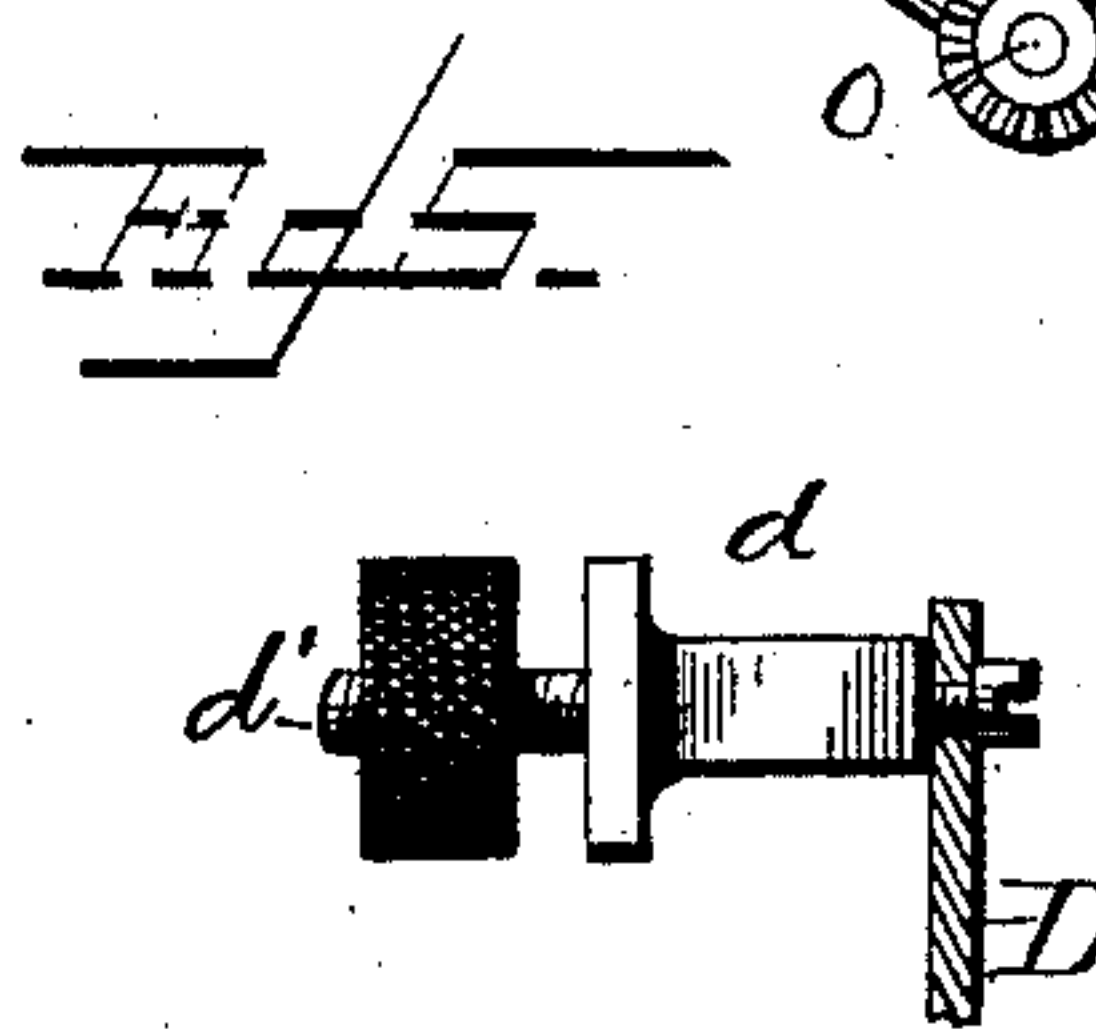
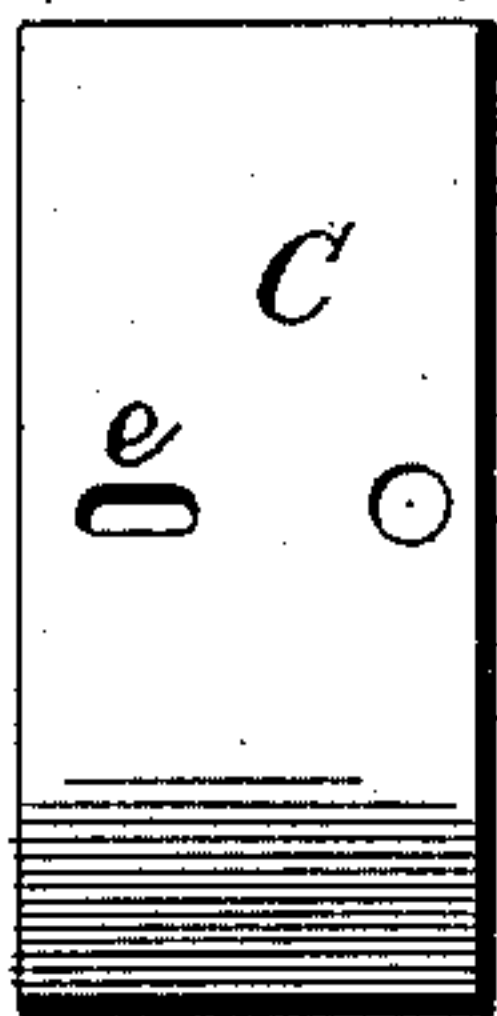
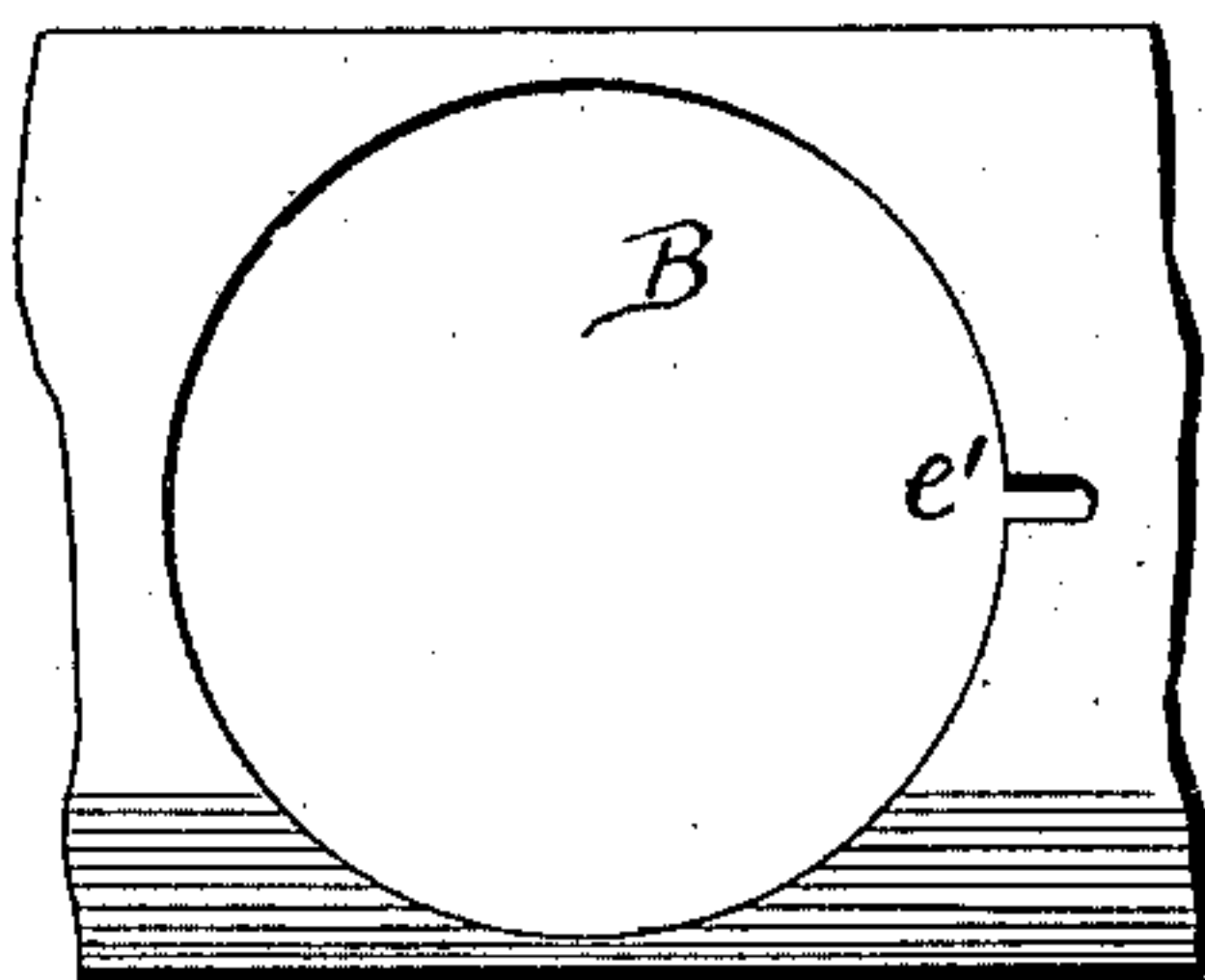
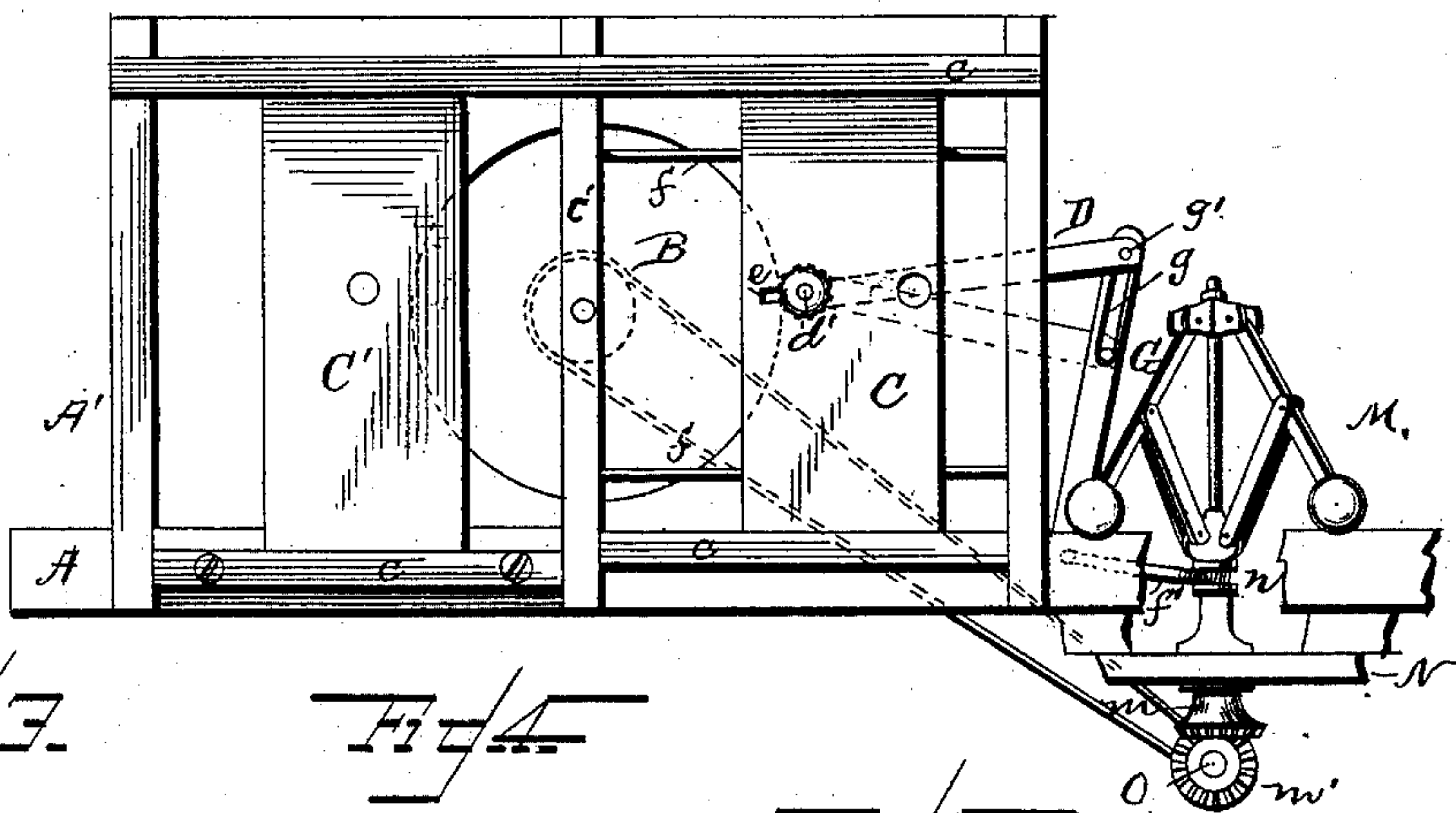
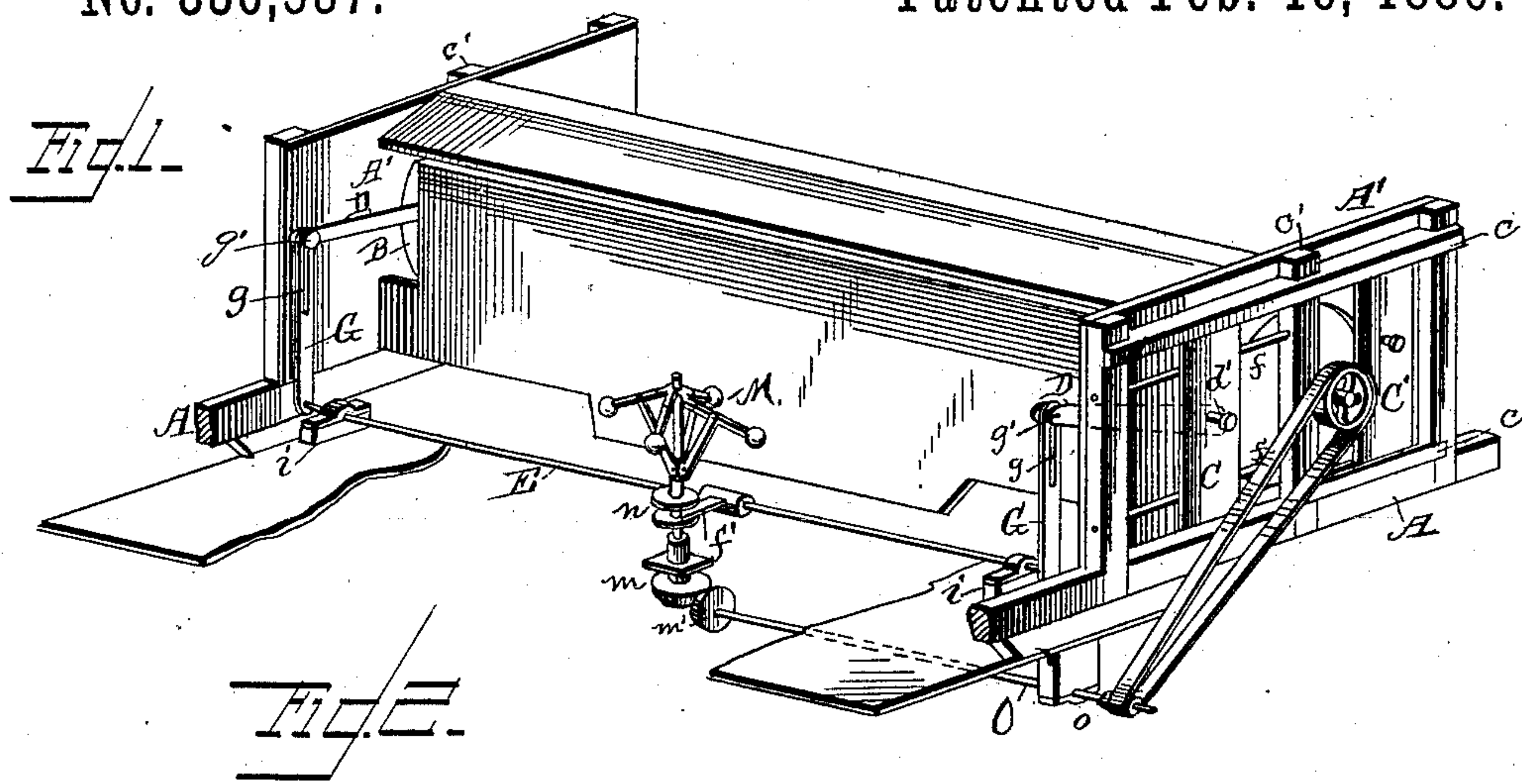


(No Model.)


J. J. WILSON.  
FAN BLAST REGULATOR.

No. 336,537.

Patented Feb. 16, 1886.



WITNESSES  
F. L. Curande  
E. Johnson

John J. Wilson  
INVENTOR  
By  His Attorney



# UNITED STATES PATENT OFFICE.

JOHN J. WILSON, OF GREEN PRECINCT, ASSIGNOR OF ONE-HALF TO HENRY H. WILSON, OF LINCOLN, NEBRASKA.

## FAN-BLAST REGULATOR.

SPECIFICATION forming part of Letters Patent No. 336,537, dated February 16, 1886.

Application filed July 23, 1885. Serial No. 172,456. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN J. WILSON, a citizen of the United States of America, residing at Green Precinct, in the county of Saunders and State of Nebraska, have invented certain new and useful Improvements in Fan-Blast Regulators; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as 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 letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to certain new and useful improvements in devices for automatically regulating the blast of air which is caused by such fans as are attached to grain-thrashing machines or fanning-mills; and my invention consists in the construction and combination of the parts, as will be hereinafter fully set forth, and specifically pointed out in the claim.

In the accompanying drawings, which illustrate my invention, Figure 1 is a perspective view thereof. Fig. 2 is an end view, and Figs. 3, 4, and 5 are detail views.

My invention is designed to provide novel means whereby the blast from the fan will be automatically regulated and kept uniform with relation to the speed of the machine, which end is accomplished by means as shown in the accompanying drawings and hereinafter described.

A represents the sills of an ordinary fanning-mill or thrashing-machine, above which are located the side boards, A', between which is situated the fan-case and the fan. These side boards, A', are provided with circular apertures B, which are opposite to the sides of the fan.

C C' represent sliding doors, which are retained in place between the grooved bars c c, and are adapted to be slid toward the center post, c', so as to close the apertures B. The sliding door C' is of ordinary construction, and is provided with a knob or pin for moving the same to or from the center post, c'. The opposite door, C, is also, for convenience sake, provided with a similar knob, and in addition to this knob it is provided with a pin or set-

screw, d, for attaching the connecting-arm D to the door, the construction of the same being as shown in Fig. 5, the portion d' of said pin passing through a slot, e, in the door C, so that the parts can be adjusted and clamped upon the same. The opposite end of the pin is attached to a connecting-arm, D, which is secured to a rock-bar, G.

The sliding door C, in order to prevent the same from becoming jammed in its frame, is provided with horizontal bars ff, upon which the door will slide, in addition to being secured in the ordinary frame.

A rock-shaft, E, extends across the fan-box, and is journaled in boxes i i, located adjacent to the sills A, and to the ends of this rock-shaft are attached rocker-bars G, which are provided at their upper ends with slots g, so that the connecting-arms D, which are provided with set-screws g', may be adjusted upon said arms. The rock-shaft E is provided at a suitable point with a sleeve, to which is rigidly attached a projecting arm, f', which engages with the recessed collar n of an ordinary governor, which is mounted on a cross-timber, N, secured to the frame of the thrashing-machine.

The governor M is of ordinary construction, and is provided on the lower end of its vertical shaft with the beveled cog-wheel m, which engages with a similar cog-wheel, m', which is attached at the end of the shaft O, which shaft carries at its opposite end a pulley, o, which is driven from a belt which passes around a driving-pulley secured to the fan-shaft, said fan-shaft being provided with the usual means for rotating the same from the thrashing-machine.

Extending into opening B is a slot, e', into which the portion d' of the pin will fit when the sliding door C is fully open.

The operation of my invention is as follows: The doors C C' are first adjusted so that the fan when running at its ordinary rate of speed will give the proper blast, and each set-screw g' is then tightened, so as to fasten the arm and rock-bar to each other. The pulley o is connected either directly or indirectly with the fan-shaft, and when the rate of speed of said fan is too great to give the proper blast

the arms of the governor will be thrown out, so as to raise the sliding sleeve *n*, and thus tilt the rock-shaft *E* and move the doors *C*, so as to close a portion of the openings *B*, thus cutting off the supply of air and reducing the draft by the means hereinbefore described. It will be readily seen that the draft is kept uniform and automatically regulated.

I claim—

- 10 In an automatic fan-blast regulator, the sliding doors *C C'*, having arms *D*, adjustably secured thereto, a rock-shaft, *E*, carrying at its ends bars *G*, and a central projecting arm,

*f'*, the governor having a movable sleeve, shaft, *O*, pinions *m m'*, for rotating the governor, and a belt for driving said shaft from the fan-shaft, the parts being combined and organized substantially as shown, and for the purpose set forth. 15

In testimony whereof I affix my signature in presence of two witnesses.

JOHN J. WILSON.

Witnesses:

SAMUEL BIGGERSTAFF,  
S. L. SEARS.