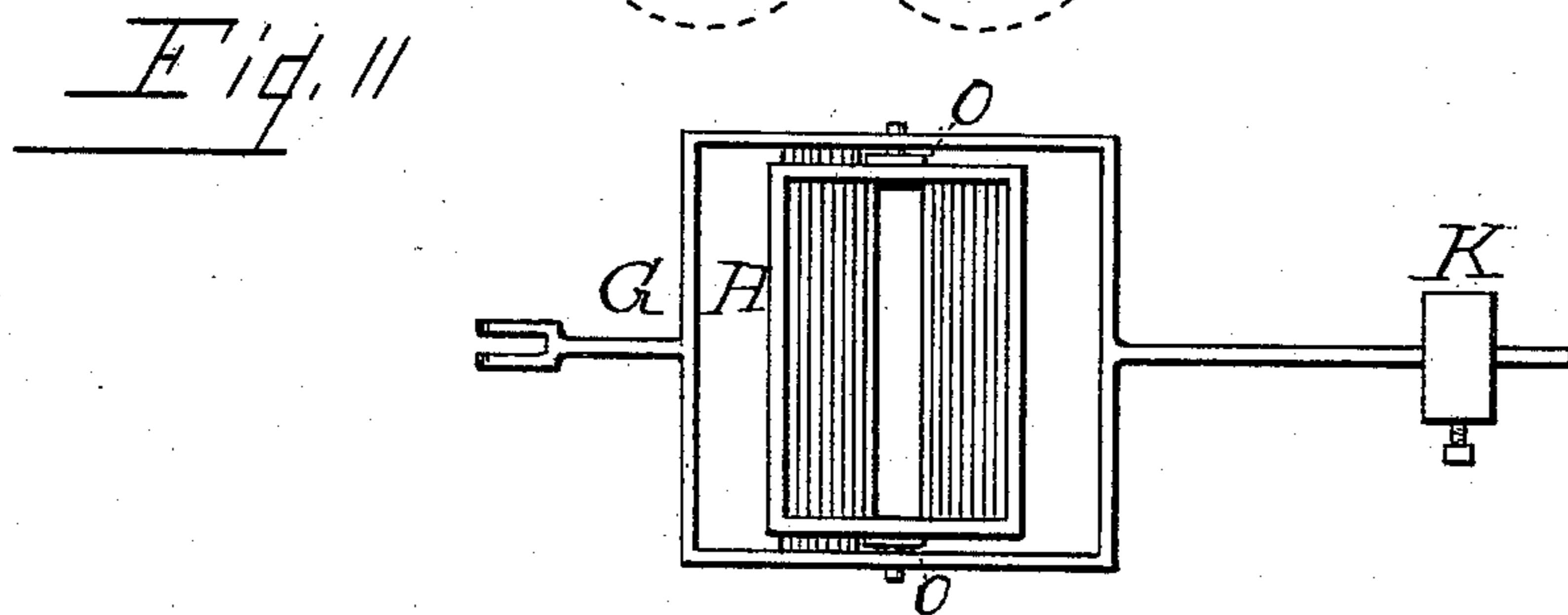
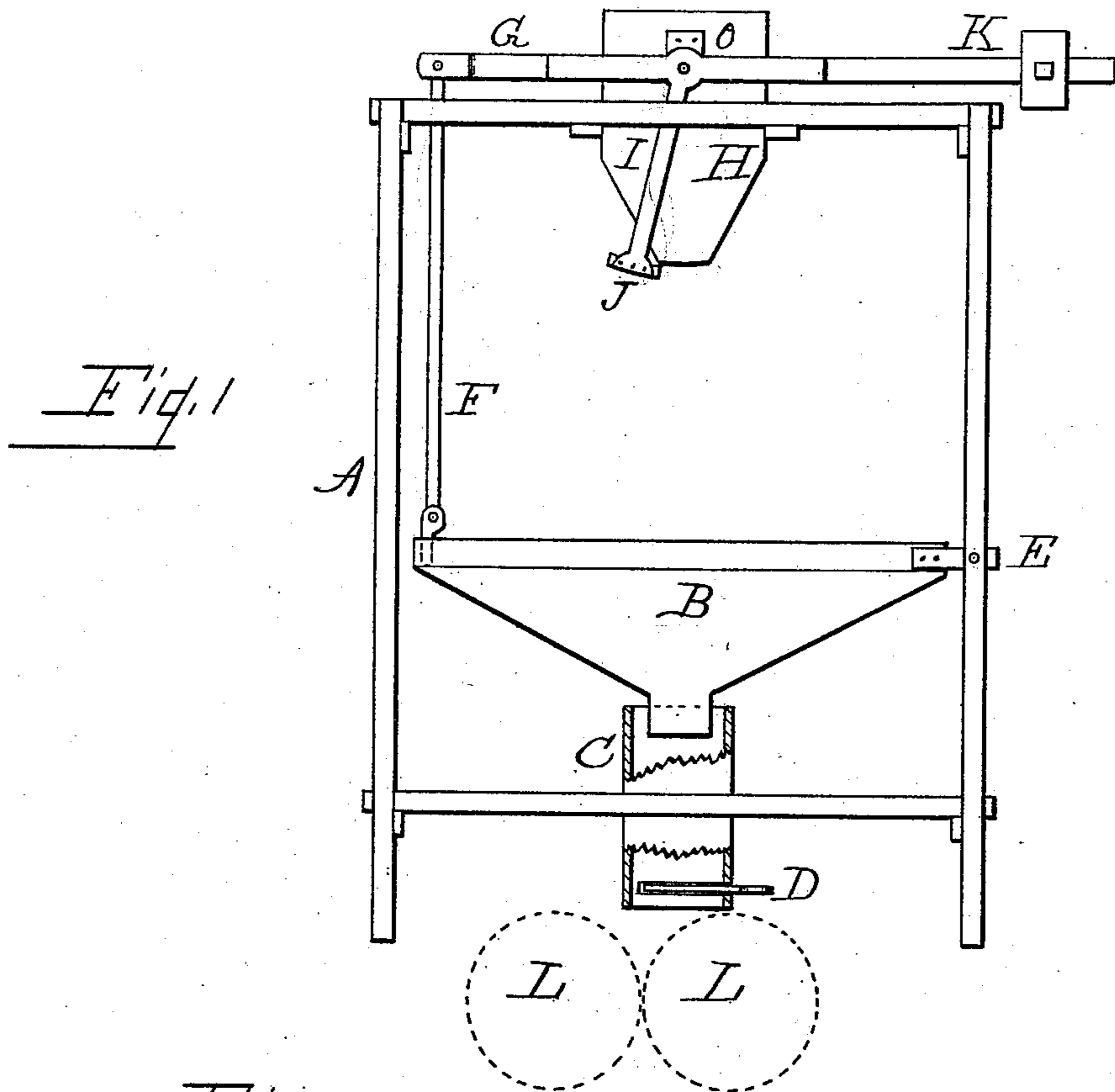


(No Model.)

E. A. HOOVER.
FEED REGULATOR.

No. 384,443.

Patented June 12, 1888.



Witnesses.

Will. C. Kette.
Geo. Varnish.

Inventor.

Ellis A. Hoover.

By His Attorney B. Pickering.

UNITED STATES PATENT OFFICE.

ELLIS A. HOOVER, OF WEST MILTON, OHIO.

FEED-REGULATOR.

SPECIFICATION forming part of Letters Patent No. 384,443, dated June 12, 1888.

Application filed January 21, 1888. Serial No. 261,543. (No model.)

To all whom it may concern:

Be it known that I, ELLIS A. HOOVER, a citizen of the United States, residing at West Milton, in the county of Miami and State of Ohio, have invented certain new and useful Improvements in Feed-Regulators; and I 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, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in feed-regulators used to regulate or arrest intermittently the flow of wheat into the hopper, through which the said wheat passes in supplying a roller-mill or a pair of burr-stones in the production of flour.

The nature of my invention consists in supporting one side of the hopper on pivots and supporting the opposite side on a pivotal lever having a counter-weight attached thereto to support the free end of the said hopper, and to which lever are attached arms carrying a valve which closes the supply-spout when the side of the hopper descends by the accumulation of grain within the same.

The mechanism is illustrated in the accompanying drawings, in which—

Figure I is a side elevation of the regulator with portions cut away to exhibit the interior. Fig. II is a top view of the supply-pipe with contiguous parts.

Like letters designate like parts in both figures.

The frame A serves to support one side of the hopper B on pivots, the opposite being supported by the arm F, depending from lever G, and the supply-pipe H is held in cross-pieces of the same, and is closed by the valve J, held in arms of said lever. This frame may be greatly modified or entirely dispensed with, as the hopper may, in part, be supported on the burr-stone or roller-frame, and the supply-pipe, as is ordinarily the case, may be supported in the floor overhead. The hopper B is constructed in the usual form with inclin-

ing bottom and terminating in a short spout. One side is supported by pivots E on the frame or otherwise, as may be convenient, and the other side is connected by the rod F to the end of the lever G, and these form the supports for the hopper. The lever G has a yoke which surrounds the supply-pipe H and on which it is supported by the pivots O, attached to the sides of said pipe. To the one end is connected the aforesaid rod and to the other end is attached the counter-weight K, and from beneath extend the arms I, to which is attached the valve J, whose face covers the outlet of the supply-pipe. The pipe C is supported in a cross-piece of the frame; but the usual support will be the frames of either the burr-stones or the roller-mill. The end of the hopper slightly extends into the end of this pipe. The pipe C has a slide, D, to regulate the flow of the grain to the burr stones or to the rollers, as the case may be.

The operation is thus: The grain pouring into the supply-pipe C faster than it issues to the rollers, it accumulates in the hopper. This causes a descent of the side of said hopper, which movement causes the valve J to cover the end of the supply-pipe, and the flow of grain is stopped until the hopper is so far discharged as to be overcome by the counter-weight, when the valve is again opened and the flow is resumed. The flow to the hopper is thus automatically regulated.

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

The combination, with the supply-pipe, of the hopper having one side suspended on pivots and the opposite suspended from a pivotal lever, a valve attached to said lever to close the orifice of the supply-pipe, and a counter-weight thereon to serve as a counterpoise to the unloaded hopper, substantially as set forth.

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

ELLIS A. HOOVER.

Witnesses:

B. PICKERING,
SUMNER T. SMITH.