

(No Model.)

B. R. COLLINS.
CIDER MILL.

No. 438,679.

Patented Oct. 21, 1890.

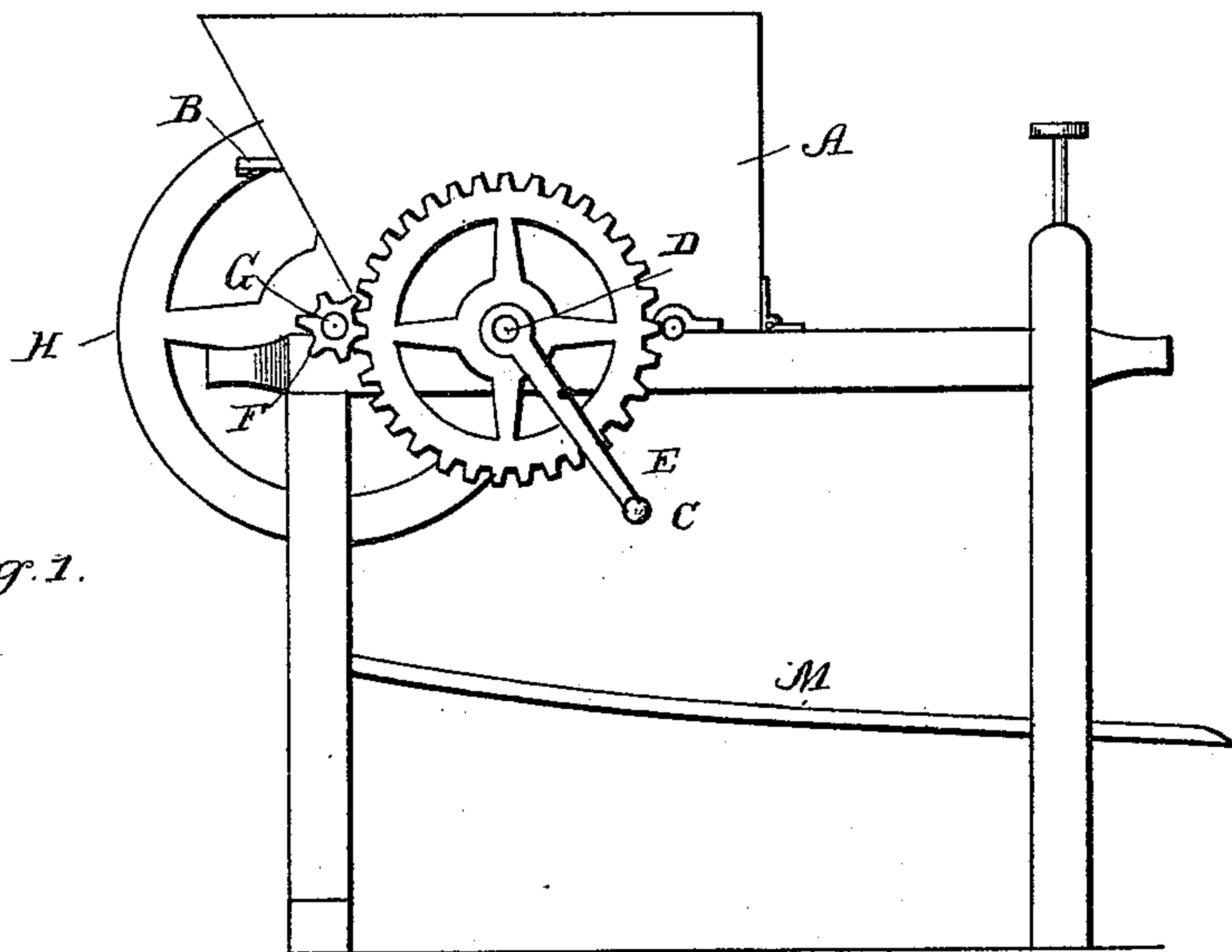


Fig. 1.

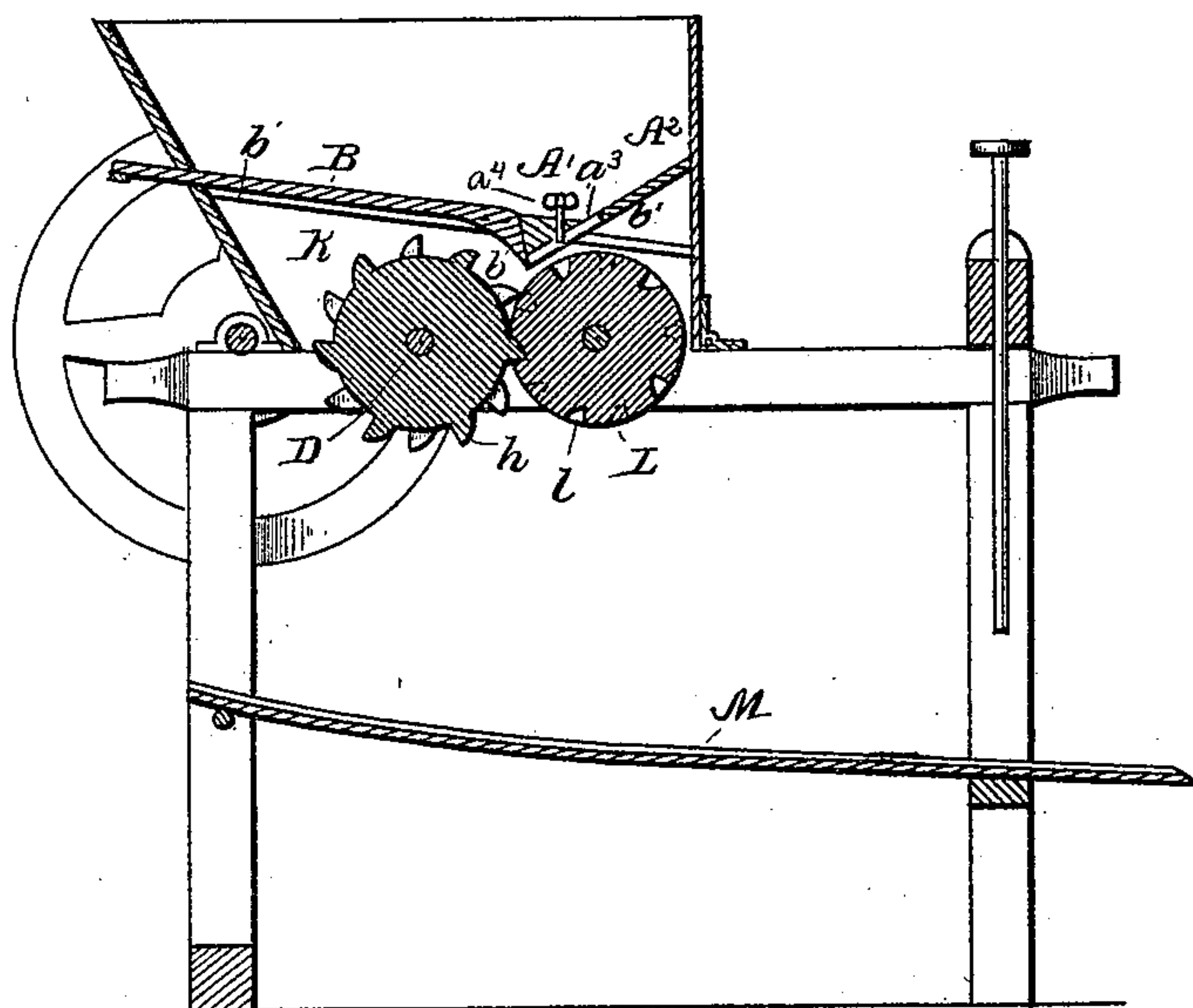
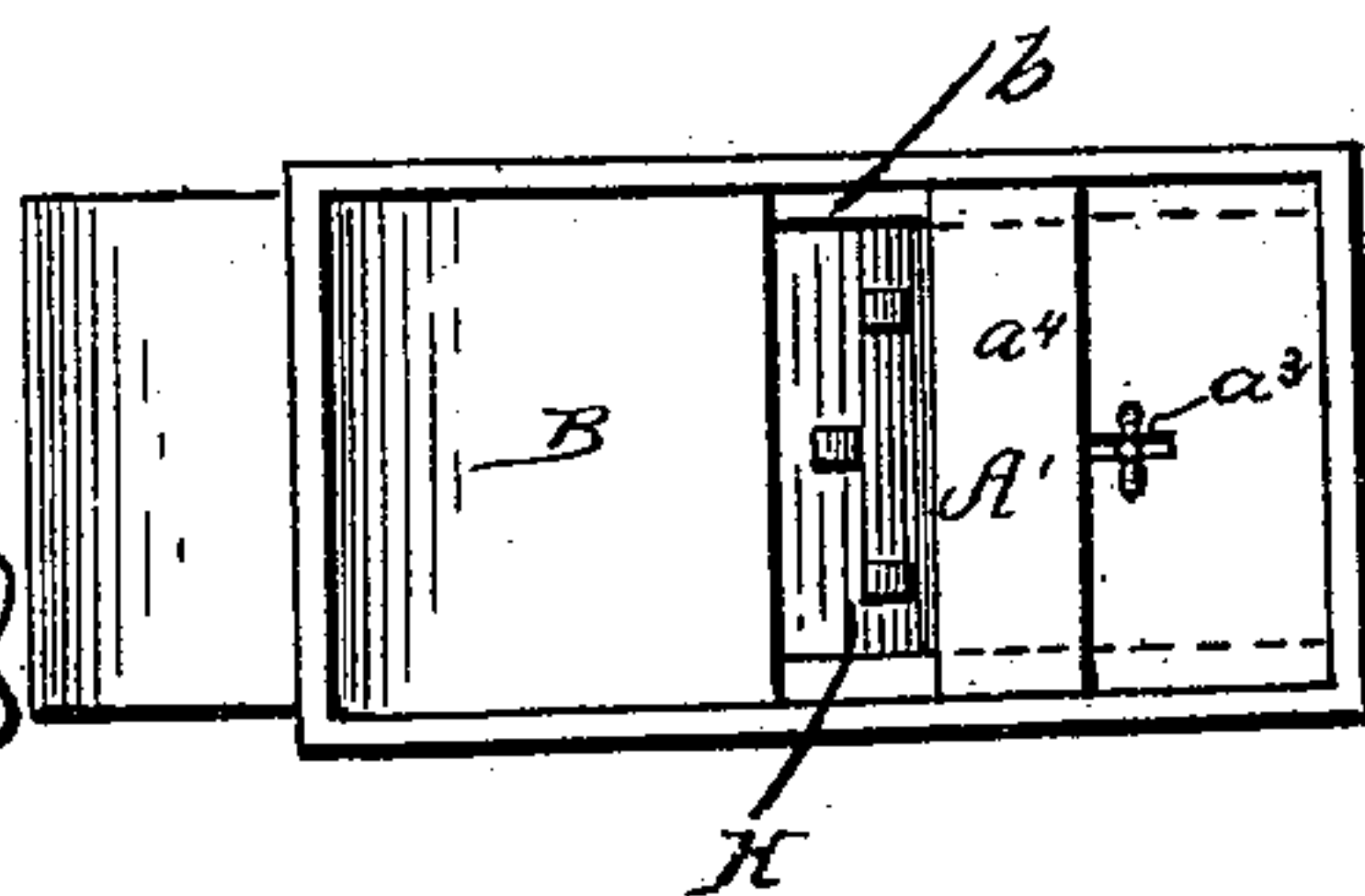


Fig. 2.

Fig. 3.

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UNITED STATES PATENT OFFICE.

BAALAM RANDOLPH COLLINS, OF SOUTHSIDE, TENNESSEE.

CIDER-MILL.

SPECIFICATION forming part of Letters Patent No. 438,679, dated October 21, 1890.

Application filed May 26, 1890. Serial No. 353,217. (No model.)

To all whom it may concern:

Be it known that I, BAALAM RANDOLPH COLLINS, a citizen of the United States, residing at Southside, in the county of Montgomery and State of Tennessee, have invented certain new and useful Improvements in Cider-Mills; 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.

My invention relates to cider-mills; and it is chiefly my object to provide a mill which shall be simple and economical of construction and effective in operation.

In the accompanying drawings, Figure 1 is a side view of my cider-mill. Fig. 2 is a longitudinal section; and Fig. 3 is a plan view of the hopper and the devices contained therein, showing the feed-gage partly open.

Reference being had to the drawings, A denotes the hopper hinged to the frame-work.

B denotes a sliding feed-gage having a lip or projection *b*.

b' b' are tracks or sideways secured to the inner side walls of the hopper, upon which the feed-gage rides.

A' is a crusher-bar built into the rear end of the hopper or adjustably secured to the guide-board A² by means of the slot *a*³ and clamps *a*⁴, as shown in the drawings.

C denotes a crank secured to a shaft D. Said shaft carries a cog-wheel E, which meshes with a pinion F on the shaft G. Said shaft G carries a fly-wheel H.

K denotes a roller carried on the shaft D. Said roller has projecting teeth *h*.

L denotes a roller journaled to the frame-work, and is provided with sockets *l*.

M denotes a crib arranged under the rollers K L.

My cider-mill is preferably supported upon a frame-work, which consists of four uprights properly braced and two horizontal bars provided with handles for convenience in moving the mill.

The hopper, feed-gage, crusher-bar, and rollers K L and the teeth *h* are all made of wood, my object being that the cider and apples shall be free from contact with any metal surface.

The shafts D and G, the cog E, pinion F, and fly-wheel H are preferably made of metal. The crusher-bar can be adjusted forward or backward upon the guide-board A² to better

adjust the mill for smaller or larger apples. The purpose of said crusher-bar is to hold the apples that pass between it and the feed-gage in contact with the knives *h*. The feed-gage *b* projects through a slot cut in the front end of the hopper, said projection serving as a handle to operate the slide or gage. The lip *b* is fastened to or formed on the under side of said feed-gage and serves to force the apples that have passed under the feed-gage down upon and between the rollers, when required. The rollers K and L are journaled to the frame-work and adjusted so that their peripheries meet or nearly meet; also, that the teeth *h* of the feed-roller K shall engage with the sockets in the roller L. Motion is imparted to the roller L by the roller K through the teeth and mortises.

The apples being placed in the hopper and motion imparted to the rollers, the apples pass through the opening formed between the top of the crusher-bar and the feed-gage to the rollers, where the teeth *h* cut and crush the same into pomace, which is then carried between the rollers and tightly pressed, the cider and pomace falling to the crib beneath. If it should be found that the apples are fed too fast and there is a tendency to choke, the feed-gage can be pushed or slid inwardly, which shuts off the supply of apples and at the same time forces the lip *b* down upon the apples underneath, thus pressing them against the revolving teeth and between the rollers until they are reduced to pomace, when the choking will be relieved.

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

1. The combination of the sliding feed-gage having a lip *b* formed on its under side, the crusher-bar, and the crushing-rollers, substantially as and for the purposes shown and described.

2. A cider-mill having a hopper with the sliding feed-gage supported upon trackways *b' b'*, the guide-board A², and the crusher-bar adjustably secured to said guide-board, substantially as shown and described.

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

BAALAM RANDOLPH COLLINS.

Witnesses:

W. J. LYLE,
B. H. HAGEWOOD.