

No. 721,251.

PATENTED FEB. 24, 1903.

R. A. STUBBS.

CLEANING DEVICE FOR USE IN CONNECTION WITH BOLTING MACHINES.

APPLICATION FILED JUNE 23, 1902.

NO MODEL.

Fig. 1.

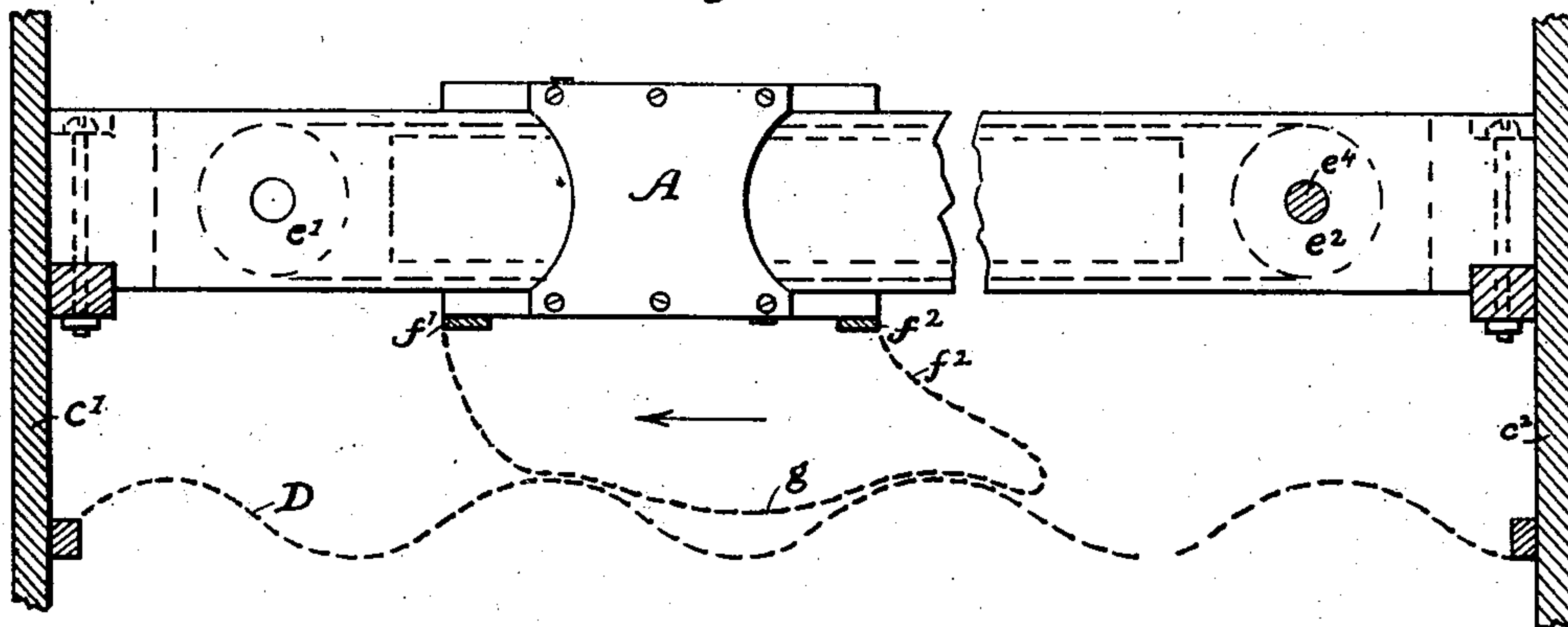


Fig. 2.

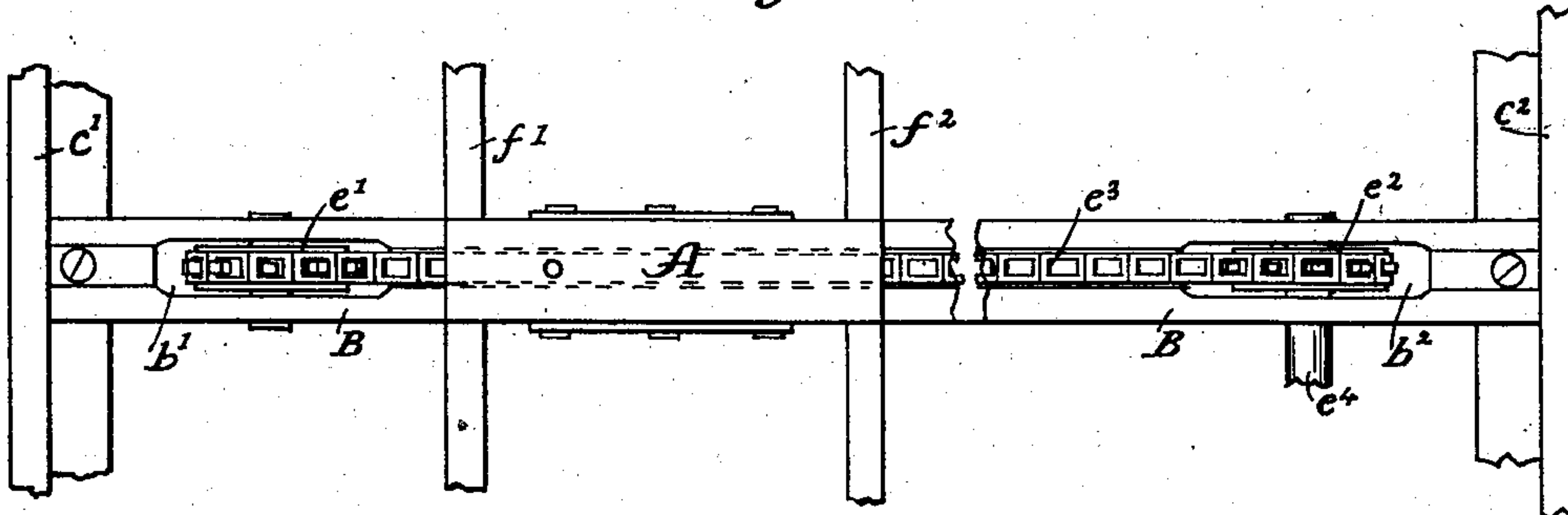


Fig. 3.

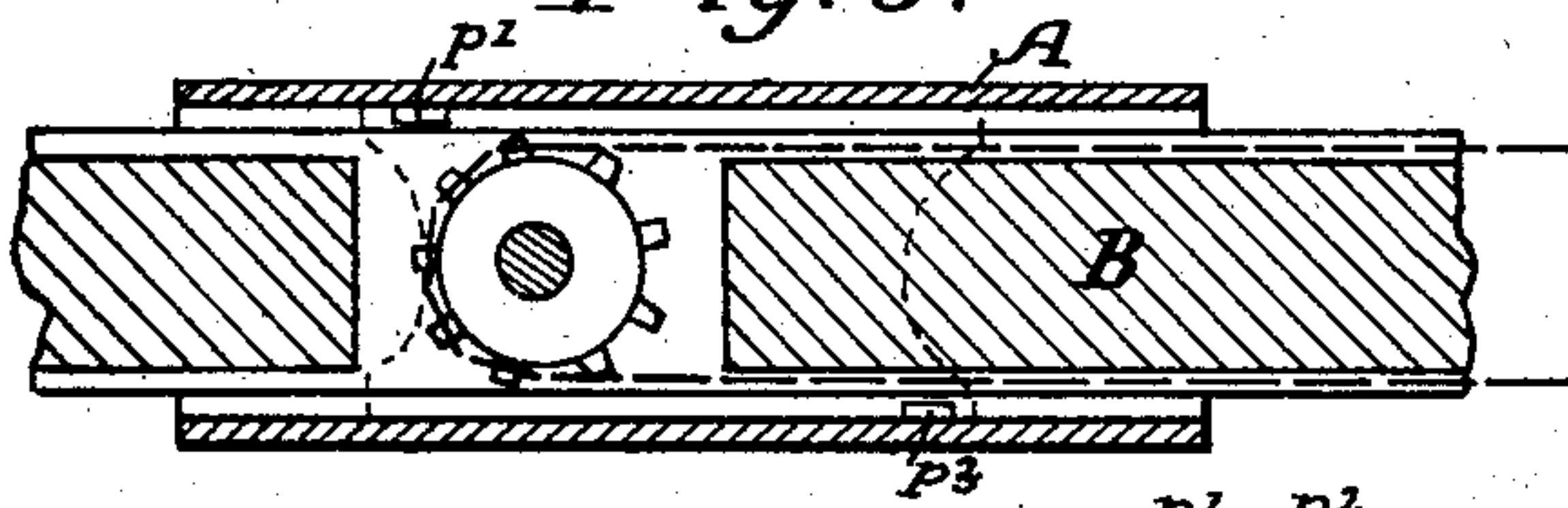


Fig. 4.

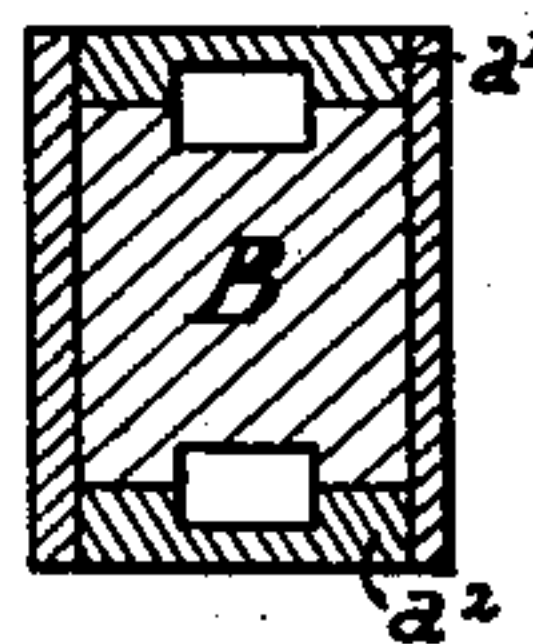
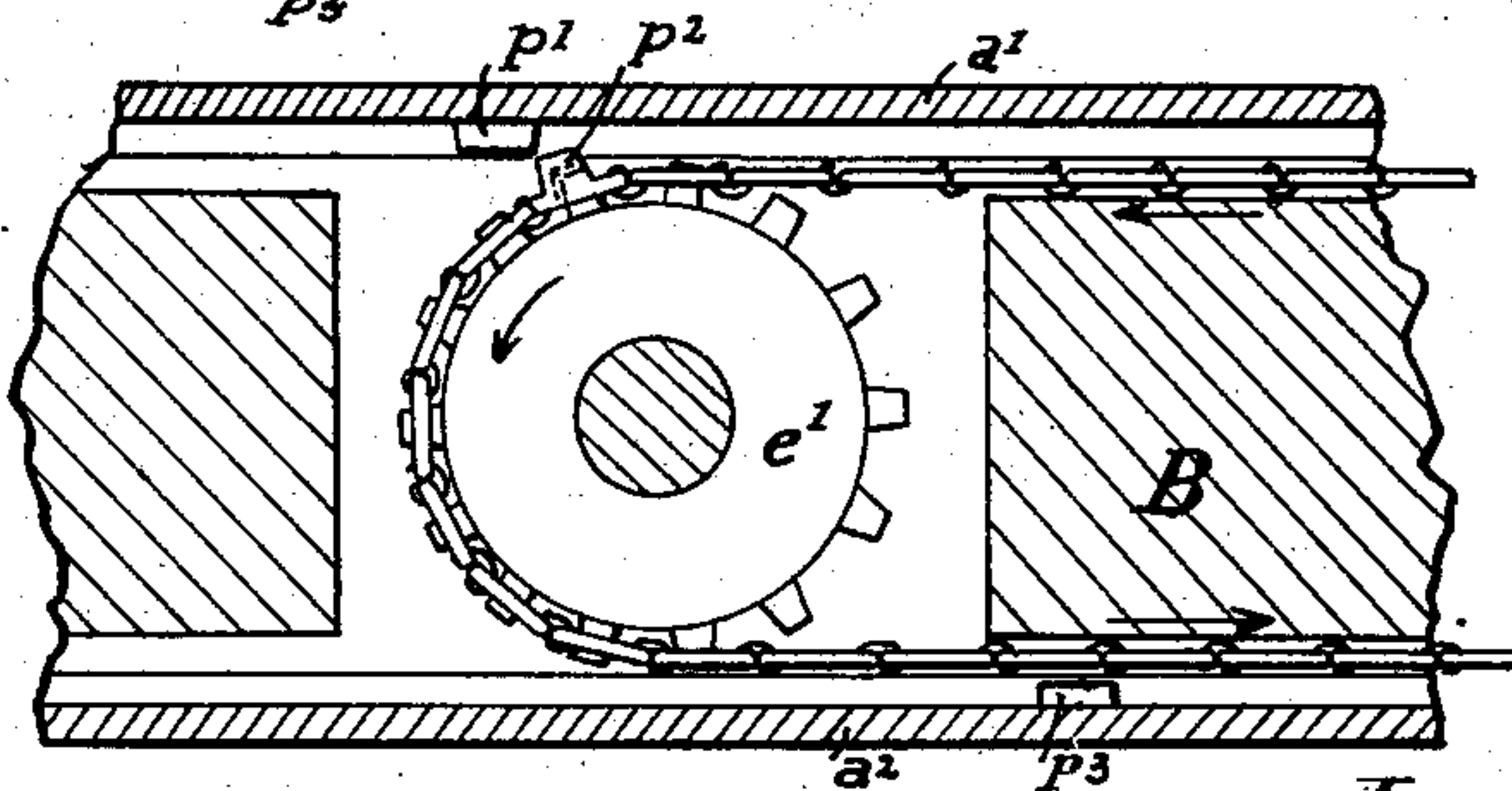


Fig. 5.



Witnesses.

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UNITED STATES PATENT OFFICE.

RILEY ASBURY STUBBS, OF DAYTON, OHIO.

CLEANING DEVICE FOR USE IN CONNECTION WITH BOLTING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 721,251, dated February 24, 1903.

Application filed June 23, 1902. Serial No. 112,805. (No model.)

To all whom it may concern:

Be it known that I, RILEY ASBURY STUBBS, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented new and useful Improvements in Cleaning Devices to be Used in Connection with Bolting-Machines, of which the following is a specification.

My invention relates to cleaning devices to be used in connection with bolting-machines of the type disclosed in my Patent No. 674,286, dated May 14, 1901, employing a bolting-cloth arranged in a horizontal plane and relatively fixed—that is, secured to fixed supports at its opposite edges—and thrown into successive corrugations or “waves” to effect the bolting operation. In these machines it is found advantageous to dislodge the fine particles of stock that may become entangled in the meshes of the cloth, and this I effect by means of a cross head or slide caused to reciprocate fore and aft above the bolting-cloth and carrying suspended above the cloth a depending brush device or series of brush devices, “curtains,” or “drags,” trailed to and fro over the tops of the waves and constructed and operating as more particularly hereinafter specified.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the device complete; Fig. 2, a top plan view; Fig. 3, a central longitudinal section, and Fig. 4 a cross-section, of the cross-head; and Fig. 5, an enlarged detail of one of the sprocket-wheels, showing the chain, its engaging lug, and the corresponding lugs of the cross-head.

Referring now to the drawings, A designates a cross-head operated upon a guide-bar B, set centrally fore and aft between the front and rear walls C' C² of the bolting-frame over the bolting-cloth D. (Shown in dotted lines in Fig. 1.)

The guide-bar B is longitudinally grooved at the upper and lower sides, as shown in Figs. 2 and 4, the grooves terminating in vertical slots b' b² near the ends, respectively. In these slots are placed sprocket-wheels e' e², carrying an endless chain e³, guided between the wheels in the upper and lower grooves of

the guide-bar B. Power is applied to the extended shaft e⁴ of one of the sprocket-wheels, as e².

The cross-head A consists of upper and lower plates a' a², one resting upon and the other beneath the guide-bar B, united by side plates a³, thus embracing the guide-bar. Both the plates a' a² are longitudinally grooved at the sides contiguous to the guide-bar B, correspondingly to the grooves in the latter. Each of said plates is provided with a stud p', projecting from without inwardly into the grooves above described.

The chain e³ has attached to one of its links a stud p², projecting into the groove of the plates a' a².

To the bottom plate a² of the cross-head are attached cross-pieces f' f², one at each end, which extend outwardly substantially the width of the bolting-cloth and carry a rectangular piece, as of “mosquito-netting” or similar textile fabric, in a downward loop, as indicated in Fig. 1.

The mode of operation is as follows: The chain being in motion, as indicated by the arrows, over its sprocket-wheels e' e², the stud p² of the chain contacts with the stud p' of the cross-head A and moves the latter from right to left of Figs. 1, 2, 3, and 5. As the link containing the stud p² passes over the sprocket-wheel e' its curved course downward removes it from contact with the stud p', and after passing around the wheel and entering upon its return horizontal course it contacts with the stud p³ of the cross-head and carries the cross-head from left to right of the designated frames back to the opposite limit of its reciprocation. In these movements the piece of material g is trailed back and forth over the crests of the waves, as indicated in Fig. 1, and dislodges the particles that may be enmeshed in the cloth.

I claim as my invention and desire to secure by Letters Patent of the United States—

1. In a bolting-machine of the character indicated, having a relatively fixed bolting-cloth thrown into successive corrugations or “waves,” a support arranged to reciprocate above the bolting-cloth and carrying suspended therefrom a cleaning device trailed

by the reciprocation of the support upon and across the wave-crests of the bolting-cloth, as set forth.

2. In a bolting-machine of the character indicated, having a relatively fixed bolting-cloth thrown into successive corrugations or waves, the combination therewith of a supporting-guide arranged above the cloth, a cross-head reciprocated thereon, a cleaning device suspended from the cross-head and means for reciprocating the cross-head upon its guide, thereby trailing the cleaning device across and upon the wave-crests of the bolting-cloth, substantially as set forth.

3. A bolting-machine including a bolting-frame; a longitudinally-grooved guide-bar supported above the bolting-cloth and extending fore and aft between the front and rear walls of the frame; a cross-head embracing the guide-bar; a looped fabric depending from the cross-head and adapted to trail over the upper surface of the bolting-cloth; and means including an endless traveling mem-

ber located in the groove of the guide-bar for reciprocating the cross-head.

4. A bolting-machine including a bolting-frame; a guide-bar above the bolting-cloth and extending between the walls of said frame, and having grooves in its upper and lower surface; a cross-head embracing the outer sides of the guide-bar, and having a trailing fabric hanging from its under side, said cross-head provided with internal studs; an endless chain operating in the grooves of the guide-bar, and sprocket-wheels journaled in said bar and over which the chain passes said chain having a stud to engage the first-named studs to reciprocate the cross-head.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

RILEY ASBURY STUBBS.

Witnesses:

JOHN L. H. FRANK,
R. BROWN HOOVER.