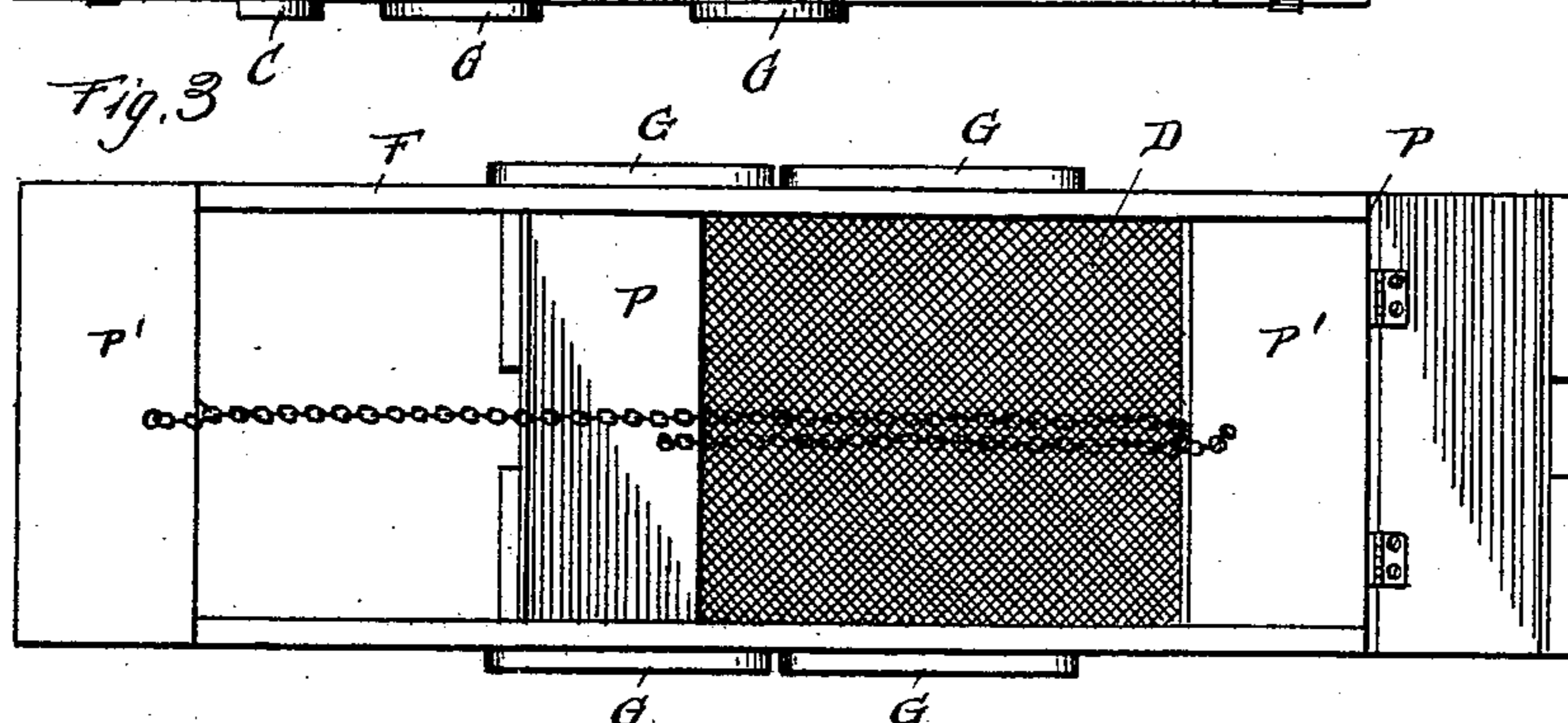
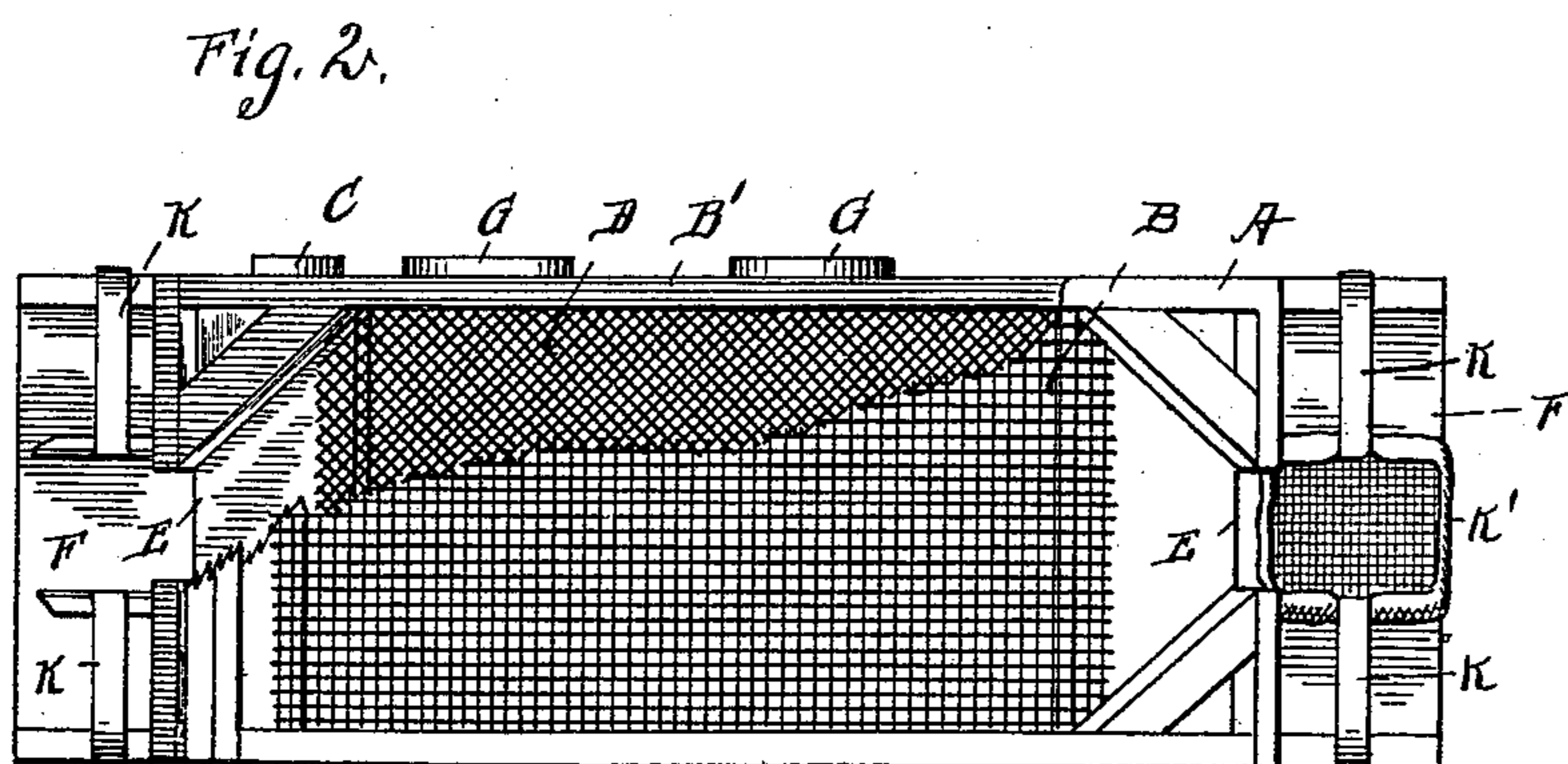
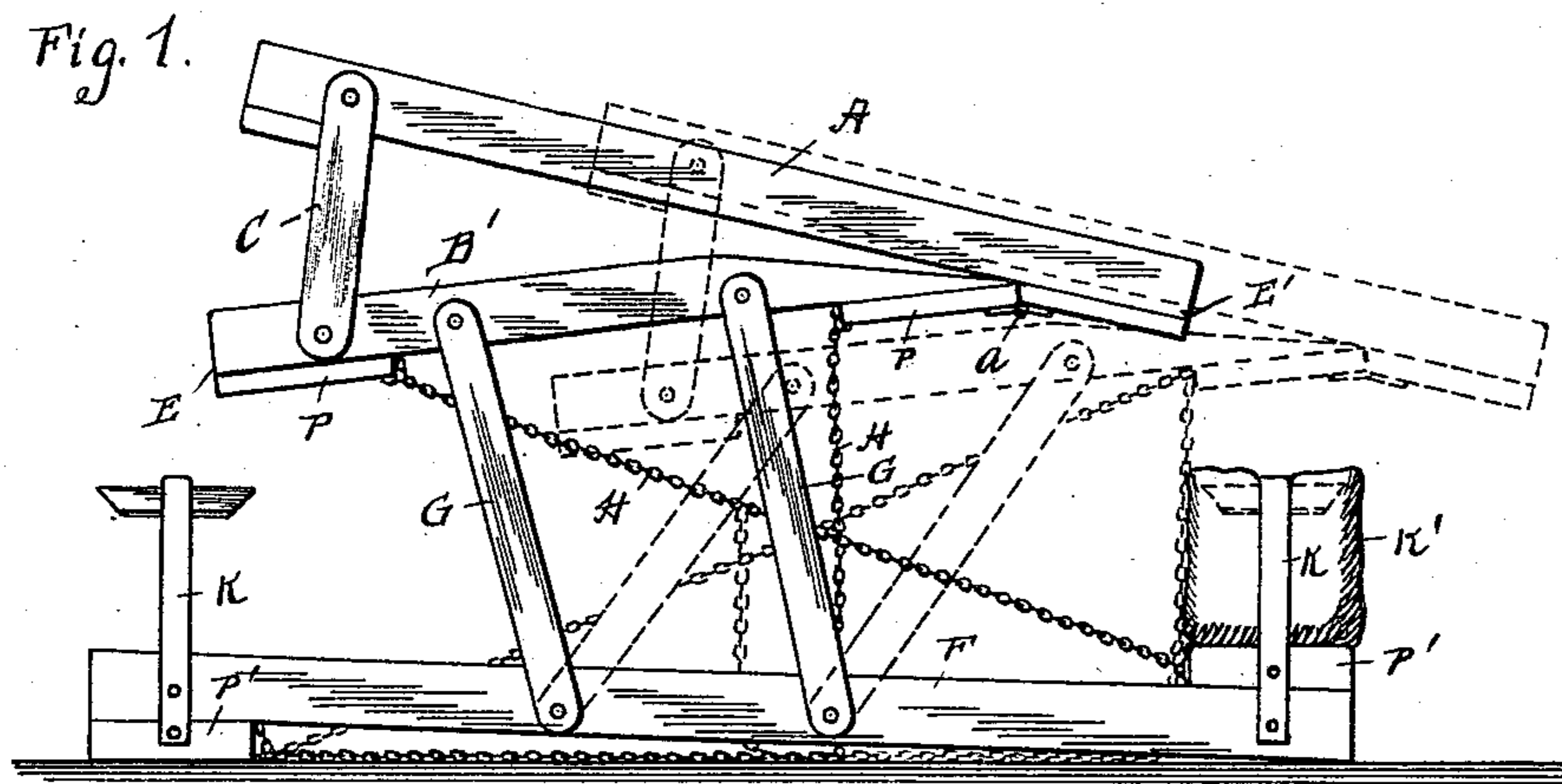


(No Model.)

E. A. SMITH.  
POTATO SORTING MACHINE.

No. 543,060.

Patented July 23, 1895.



WITNESSES

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Philip Masi.

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# UNITED STATES PATENT OFFICE.

EDWARD A. SMITH, OF GREELEY, COLORADO.

## POTATO-SORTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 543,060, dated July 23, 1895.

Application filed June 13, 1894. Serial No. 514,454. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD A. SMITH, a citizen of the United States, and a resident of Greeley, in the county of Weld and State of Colorado, have invented certain new and useful Improvements in Potato-Sorting Machines; and I do 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 of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation of an elevation of the invention. Fig. 2 is a plan view of same, partly broken away. Fig. 3 is a bottom plan view of the machine embodying the invention with the movable parts in the positions shown in dotted lines in Fig. 1.

This invention has relation to certain new and useful improvements in potato-sorting machines, the object being to provide a machine of this character simple in its construction, and which will form practical and efficient means for separating large and small potatoes from each other and from dirt and rubbish.

With this object in view the invention consists in the novel construction and combination of parts, all as hereinafter described, and pointed out in the appended claim.

Referring to the accompanying drawings, the letter A designates an inclined frame, usually rectangular, and having in its otherwise open bottom a screen B, the mesh of which is sufficiently large to admit therethrough the small or second-grade potatoes while retaining the larger or first grade.

B' is a second frame underneath the frame A and inclined oppositely thereto, being also somewhat shorter than the said frame A, to which it is connected at its upper end portion by hinges *a*. The lower end portion of this frame B' is connected to the frame A by means of bars C, one at each side, said bars being arranged to be connected to the frame

A at different vertical points, so that the relative inclination of the frames may be readily adjusted. In the frame B' is a screen D of such mesh as to retain the potatoes which fall thereon from the screen B, but to allow the escape therethrough of dirt and gravel. At the lower end of each screen the frame thereof is formed with a discharge E or E'.

F designates a suitable base or frame, upon and over which the said frames A and B' are supported by means of pivoted bars or links G, connected to the lateral rails of the said base and to the lateral bars of the frame B'. By reason of this support it will be obvious that the two screens are made capable of a longitudinal rocking reciprocating movement, such movement being limited by means of chains H or their equivalents. These chains are connected at one end each with one of the cross-bars P of the frame B', their opposite ends being attached to the respective cross-bars P' of the base, their length being such as to permit a considerable movement of the said frames.

KK are bag-holders, which may be provided at each end portion of the base-frame, being designed to support bags or sacks K' in position to receive the potatoes from the respective discharges E E'.

The operation is as follows: The potatoes being placed upon the upper screen, rocking or reciprocation of the frames is commenced, the tightening of the chains H causing, at the end of the movement in either direction, a sudden shock or jar, which causes the potatoes to travel downward over the screens and through the discharges, and also assists in the separation.

It will appear that the lower screen is perfectly accessible, so that all vines or rubbish which fall thereon from the upper screen may be readily removed with the hand without removal or displacement of any of the parts.

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

The herein described potato sorting machine, comprising a stationary base, an in-

clined rectangular screen frame A, its screen  
B, a second and shorter oppositely inclined  
frame underneath the first and hinged thereto  
at its upper end, its screen, a link bar C con-  
5 necting said frames toward the opposite ends  
thereof, the parallel link bars connecting the  
lower frame with said base, the crossed stop  
chains connected to said lower frame and to

the base and a separate discharge for each of  
said screens, substantially as specified. 10

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

EDWARD A. SMITH.

Witnesses:

W. R. NORCROSS,  
ROBERT GRAHAM.