

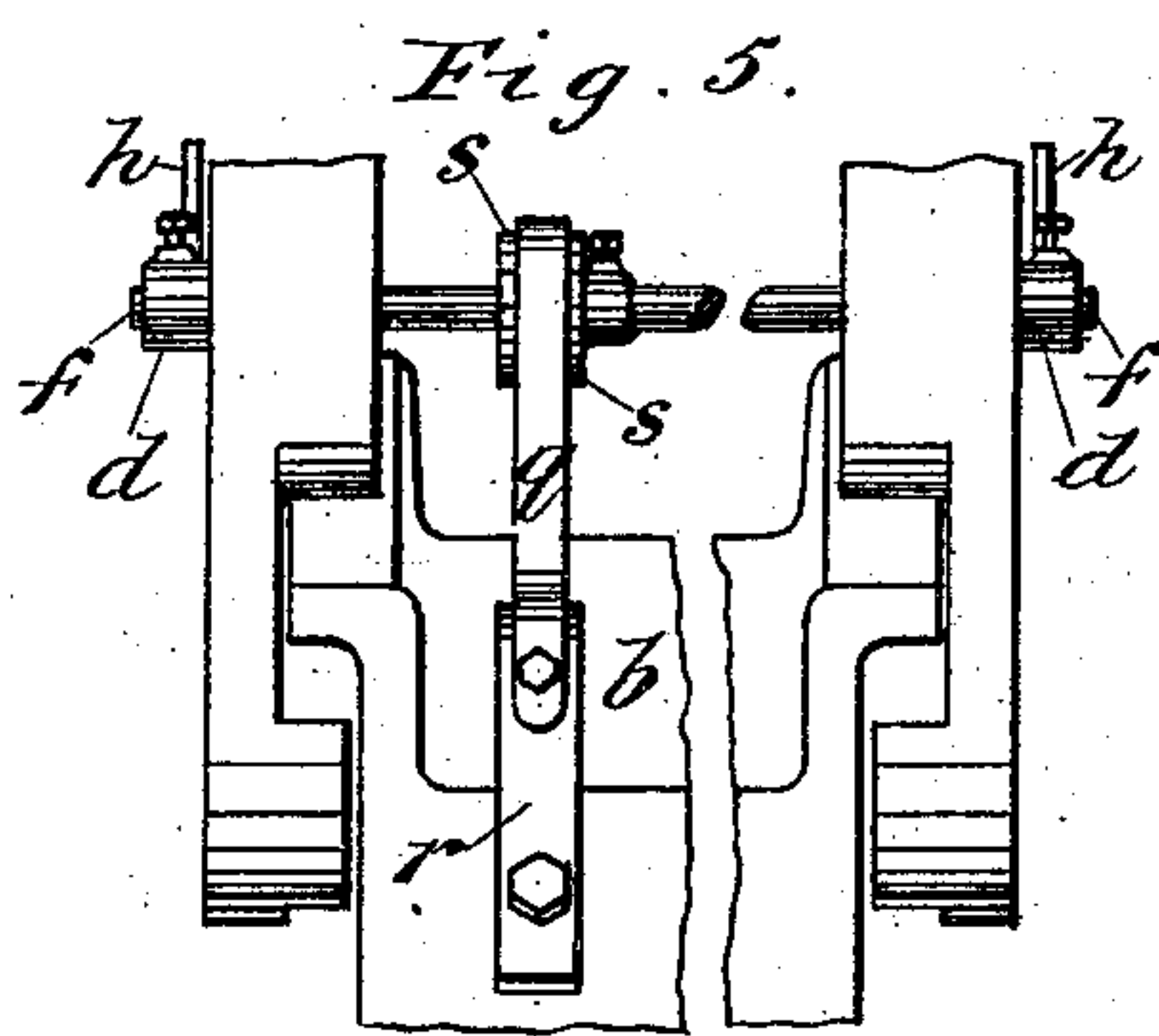
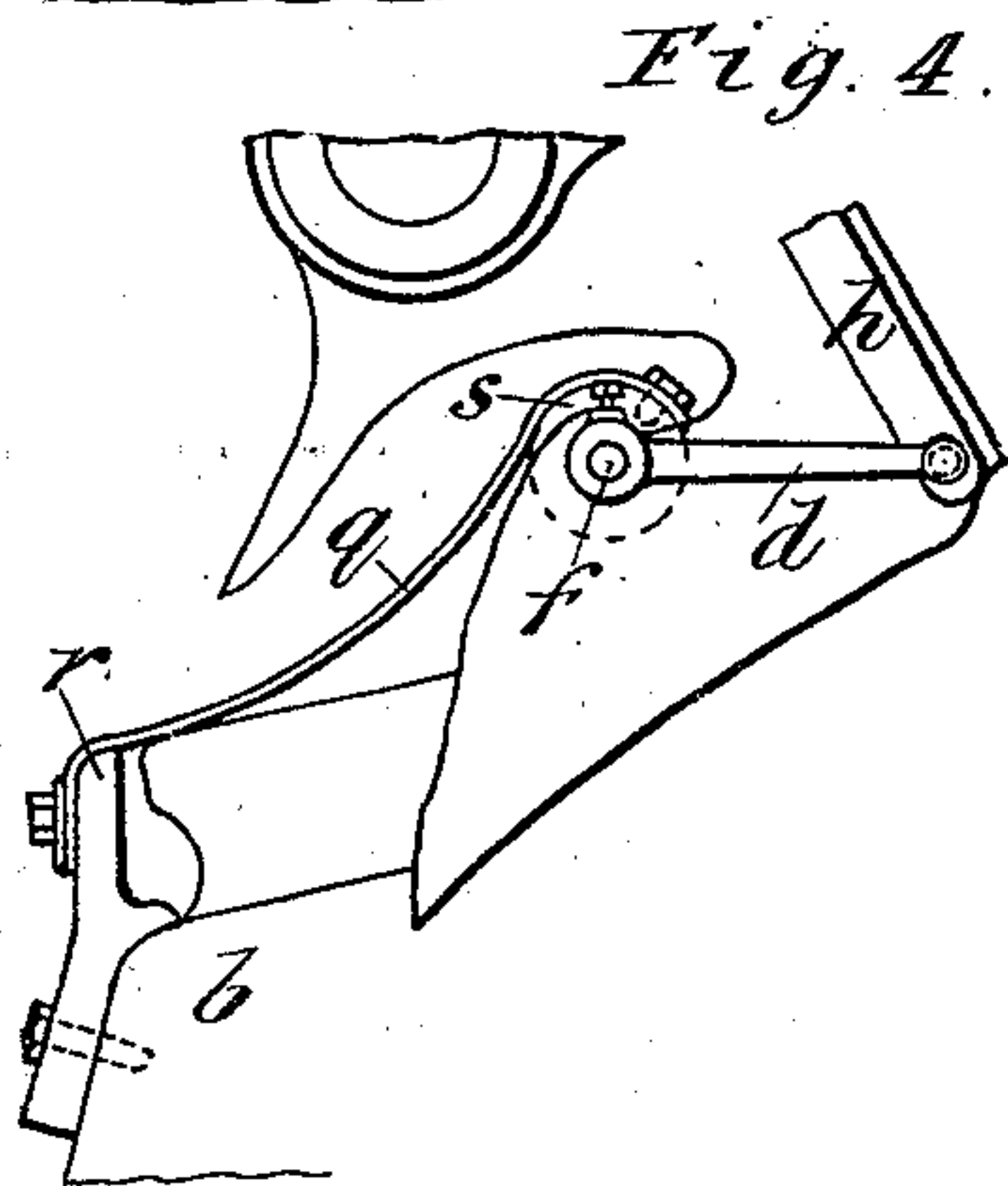
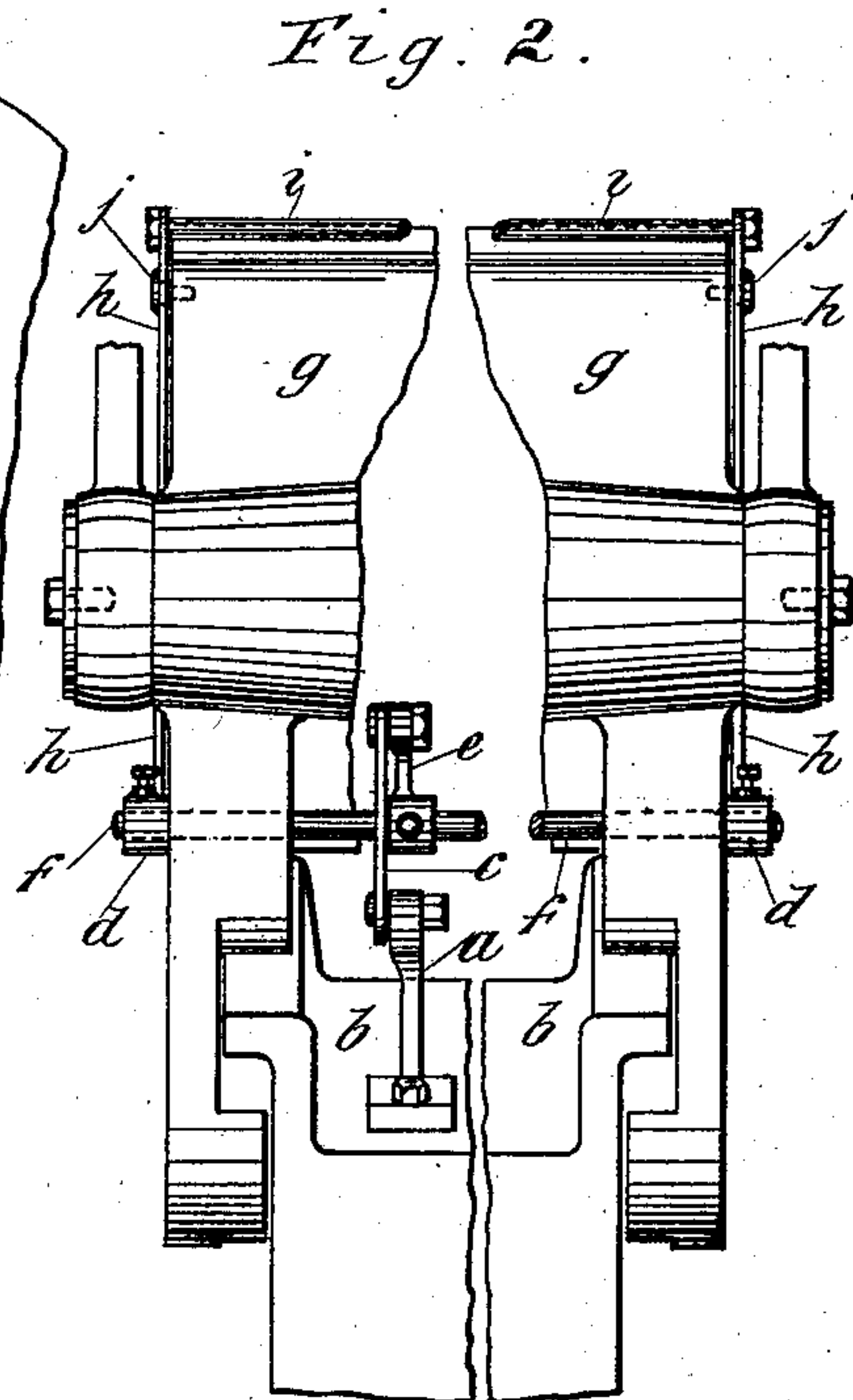
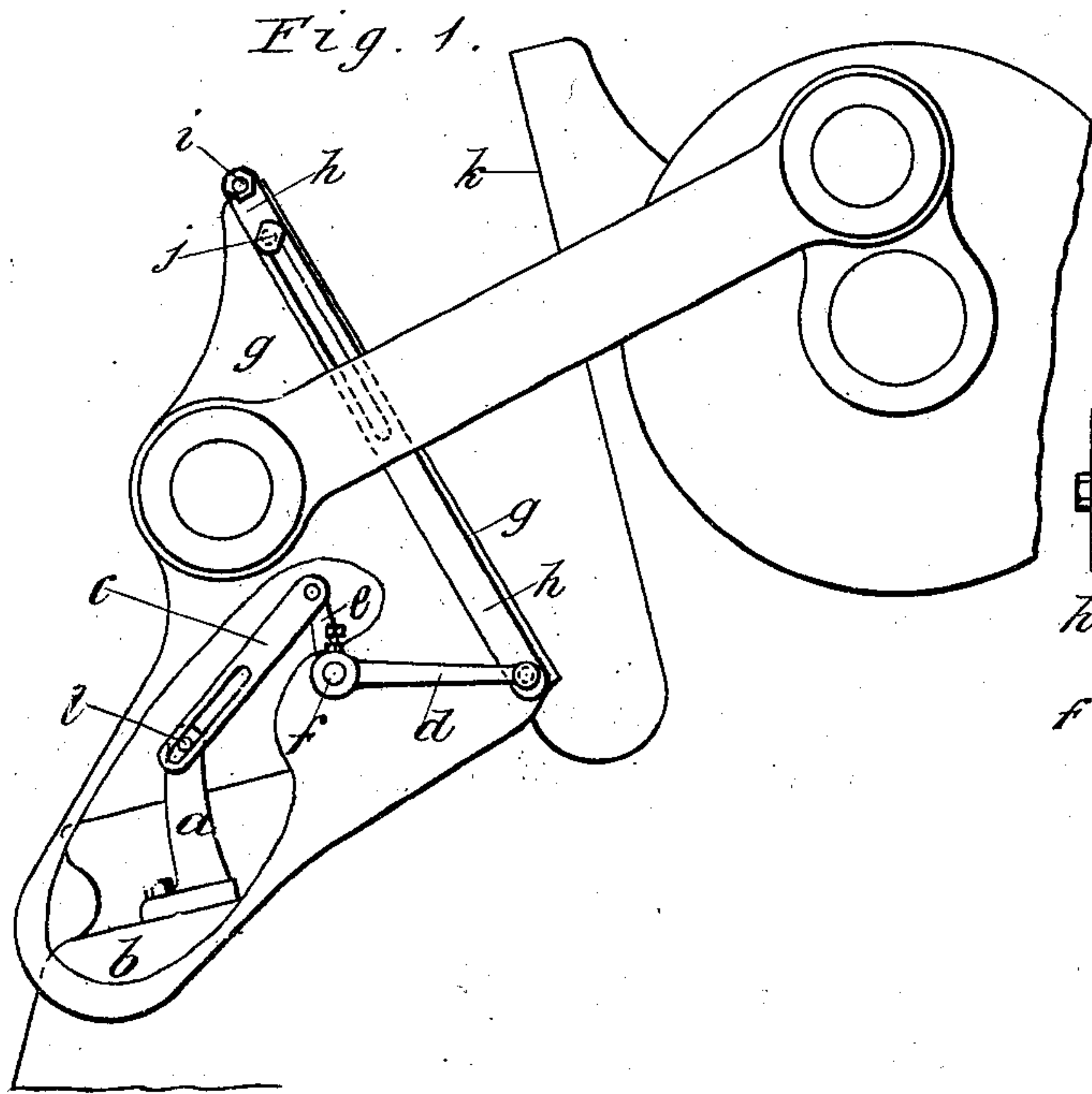
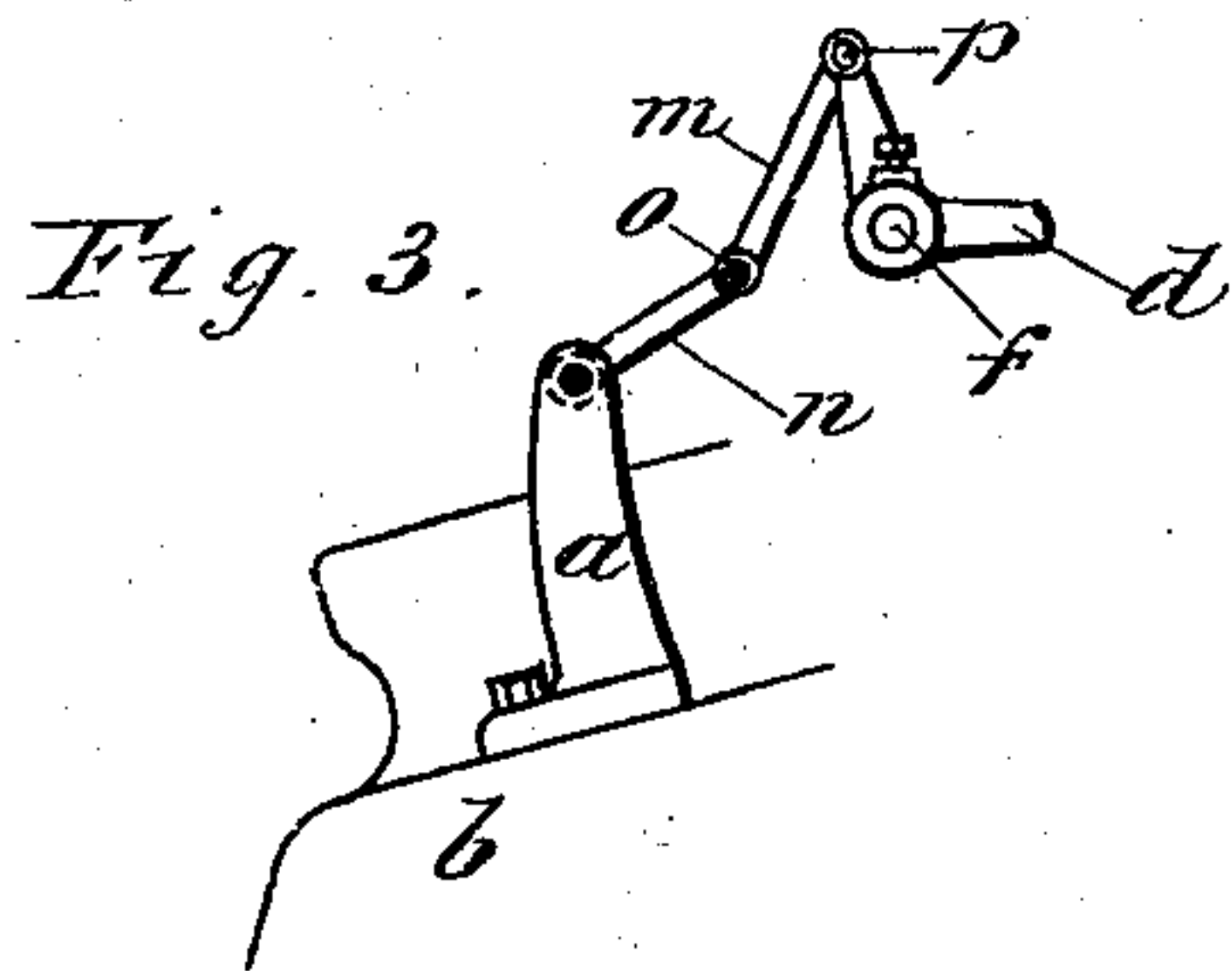
No. 708,867.

Patented Sept. 9, 1902.

F. CREWE.  
GUARD FOR PLATEN PRESSES.

(Application filed Feb. 1, 1902.)

(No Model.)



Witnesses.  
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# UNITED STATES PATENT OFFICE.

FREDERICK CREWE, OF BRISTOL, ENGLAND, ASSIGNOR TO MARDON, SON & HALL, LIMITED, OF BRISTOL, ENGLAND.

## GUARD FOR PLATEN-PRESSES.

SPECIFICATION forming part of Letters Patent No. 708,867, dated September 9, 1902.

Application filed February 1, 1902. Serial No. 92,215. (No model.)

*To all whom it may concern:*

Be it known that I, FREDERICK CREWE, a subject of the King of Great Britain, residing at Bristol, in the county of Gloucester and Kingdom of Great Britain, have invented certain new and useful Improvements in Guards for Platen-Presses for Printing, Embossing, and Cutting; 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.

This invention relates to guards for platen-presses for printing, embossing, and cutting. The object of fitting guards to such machines is, as is well understood, to prevent injury to the hand or hands of the person or persons feeding such machines.

The improved guard in which this invention consists is shown in the accompanying drawings, in which—

Figure 1 is a side view of so much of a platen-press as suffices to illustrate the application under one arrangement of fitting of the improved guard. One of the cheeks of the platen is shown as partially broken away. Fig. 2 is a face view as seen from the feeding-front of the machine. Fig. 3 shows a modified form of mechanism for operating the guard; Fig. 4, a fragmentary side view of the platen-press provided with another modified form of mechanism for operating the guard, and Fig. 5 is an elevation of same looking toward the front of the press.

Pivotally connected to a bracket *a*, which is bolted to the bed *b* of the press, is a slotted link *c*, which is pivotally connected to one end of an arm *e*, which is adjustably clamped on the rocking shaft *f*, which is extended across the machine and projects through the side cheeks of the platen *g*. At its ends the rocking shaft *f* carries levers *d*, adjustably clamped on the shaft. The levers *d* are pivotally connected to the lower ends of the arms *h*, which extend upward and are adapted to slide upward and downward along the sides of the platen-face. The arms *h* are connected together at top by a guard-rod *i*, which extends across the top of the platen. The arms *h* are slotted, so as to enable them to ride over the pins or studs *j*, fixed to the platen *g*.

The pins or studs *j* retain the side arms *h* in position along the sides of the platen-face. The platen *g* is oscillated or rocked toward and from the bed-face *k* of the press, as is usual.

The arrangement of mechanism above described is such that when the platen *g* is about to close on the face *k*, which, as is well understood, carries the type-form or embossing-dies or cutters, according to the work being performed, the guard-rod *i* is by the movement of the platen acting on the mechanism impelled sharply upward above the top of the platen *g*. Should a hand or hands of an operative or of operatives be in a dangerous position, in which, if not removed, the said hand or hands would be caught between the platen and the bed-face *k*, the guard-rod *i*, which is raised just as the platen is about to close on the face *k*, forcibly and sharply lifts the hand or hands up clear of the platen and out of danger of being crushed between it and the face *k*. The upward movement of the guard does not begin until the platen has nearly reached the face *k*, when the slotted link *c*, having moved inwardly to the full extent of its range, the lower edge of the slot engages the pin *l* and the rock-shaft is oscillated, the guard being thereby rapidly impelled upward just prior to the closing of the printing-jaws. Upon the movement of the platen away from the printing-surface *k* the lower edge of the slot of the link *c* recedes from the pin *l*, and the guard is returned to its normal position.

A modification is shown at Fig. 3 of the drawings. In this arrangement a pair of links *m* and *n* are substituted for the sliding link *c*. (Shown at Figs. 1 and 2.) The link *m* is loosely jointed at *o* to the link *n*, which latter is pivoted in the bracket *a*. The link *m* is free to turn on the pin *p*, which connects the link *m* and the arm *e*. The links *m* and *n* double down at the joint *o* when the platen has moved back to a given extent. When the links *m* and *n* are doubled down, they do not act upon the guard; but when they are extended they act upon it and raise it and lower it in substantially the same way as the link *c* in the arrangement hereinabove described with reference to Figs. 1 and 2.



In adapting the guard to platen-presses in which the space between the platen and the machine-bed is too restricted to allow of the employment of the bracket *a*, the slotted link *c*, and the arm *e* a band of leather or other suitable pliant material is substituted for the slotted link *c*. This method is illustrated at Figs. 4 and 5 of the drawings. One end of the flexible band *q* is secured to the bracket *r*, bolted to the bed *b* of the machine, and the other end to the drum *s*, secured on the rocking shaft *f*. This provides for the operation of the side arms *h* and the rod they carry at top in a manner substantially the same as with the bracket *a*, slotted link *c*, and arm *e* in the arrangement shown at Figs. 1 and 2 of the accompanying drawings and also in substantially the same manner as with the links *m* and *n*. (Shown at Fig. 3.)

Although I have not shown any specific means in Figs. 3, 4, and 5 for returning the guard to its normal position other than by the force of gravity, it is obvious that any well-known means for returning the guard to its normal position may be employed. For instance, any suitable spring arrangement might be connected to the rock-shaft or roller *f* to attain this end.

What I claim is—

1. The combination with a platen-press, of a guard slidably mounted on the platen member of said press, a rock-shaft carried by said member, a lever adjustably connected to said rock-shaft and pivoted at its other end to

said guard, and means for operating said rock-shaft at a predetermined moment.

2. The combination with a platen-press, of a rotatable member carried by the platen member of said press, lugs located adjacent the face of said platen member, a guard provided with slots engaging said lugs, a lever connected to said rotatable member and pivoted at its other end to said guard, and means for operating said rotatable member at a predetermined moment.

3. The combination with a platen-press, of a guard slidably mounted on the platen member of said press, a rock-shaft journaled in said member, a lever carried by said rock-shaft and pivotally secured to said guard, a yielding connection between the frame of the press and said rock-shaft, for operating said guard upwardly at a predetermined moment.

4. The combination with a platen-press, of a guard slidably mounted on the platen member of said press, a rock-shaft journaled in said member, a lever carried by said rock-shaft and pivotally secured to said guard, a drum carried by said rock-shaft, and a flexible tape secured to said drum and the frame of the press.

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

FREDERICK CREWE.

Witnesses:

ANDREW WOOD WILKINSON,  
JAMES PERRY COOMBE.