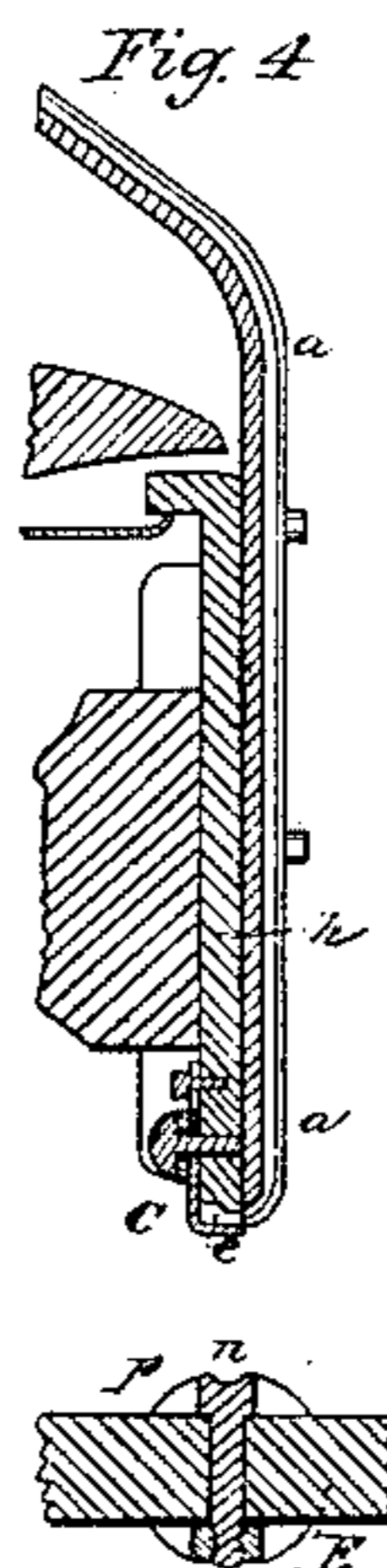
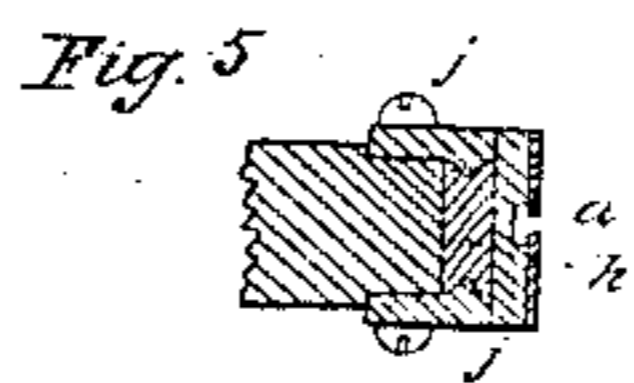
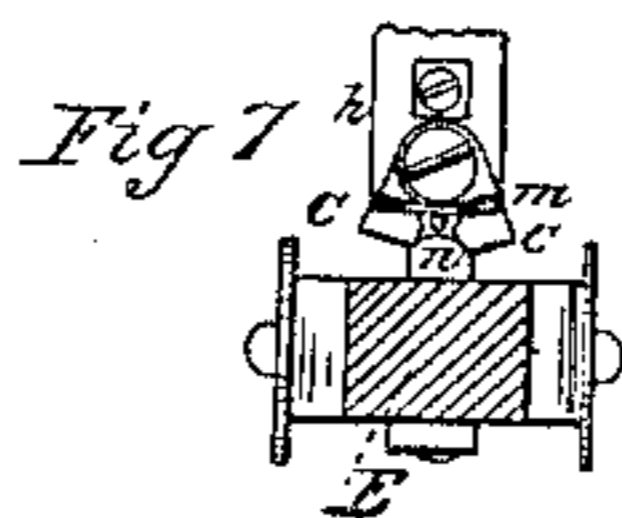
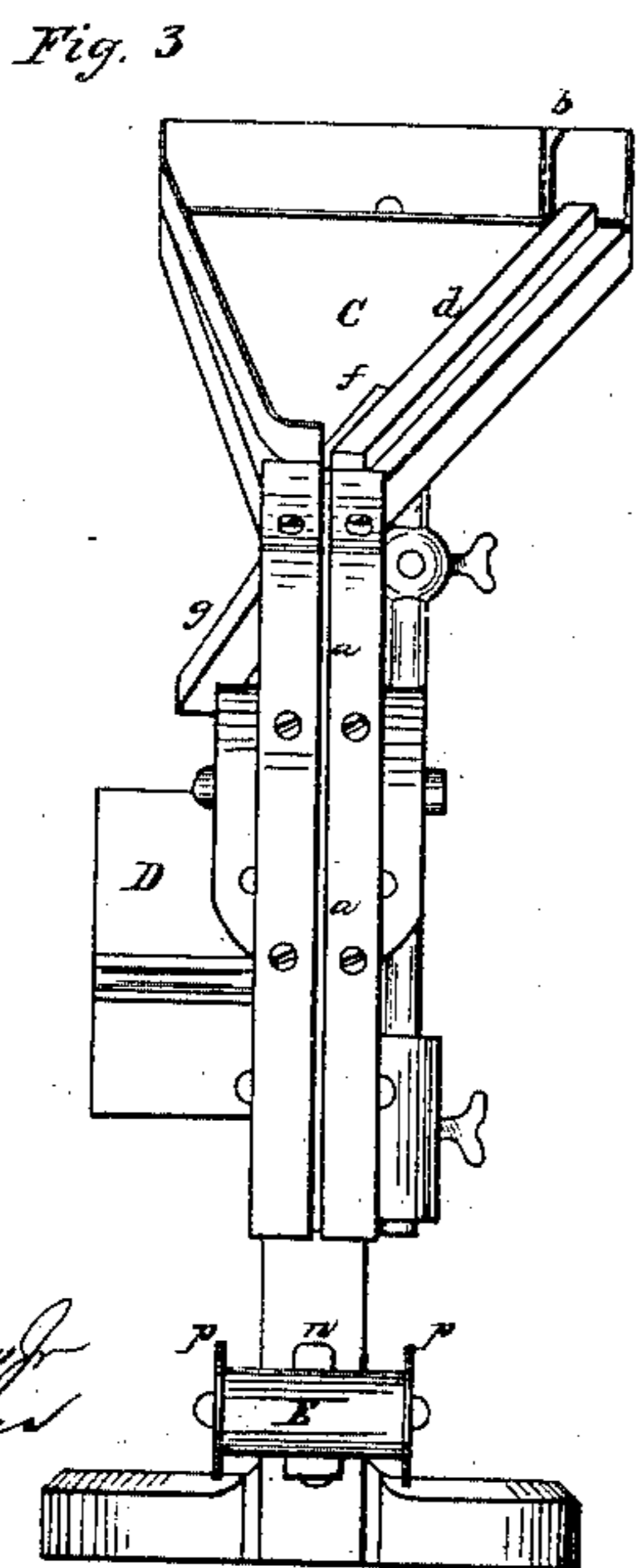
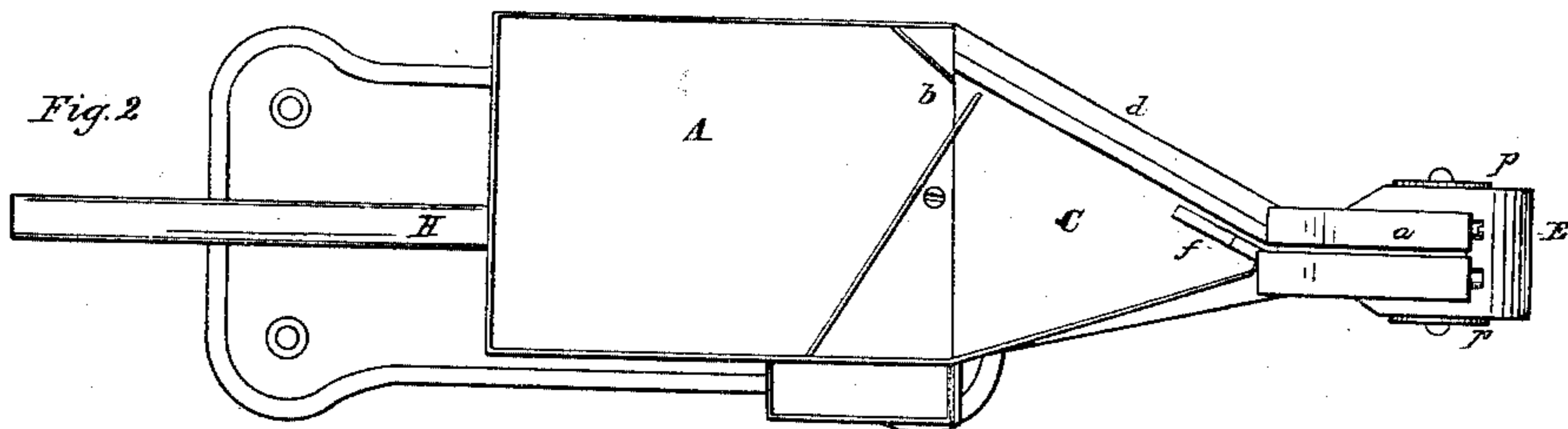
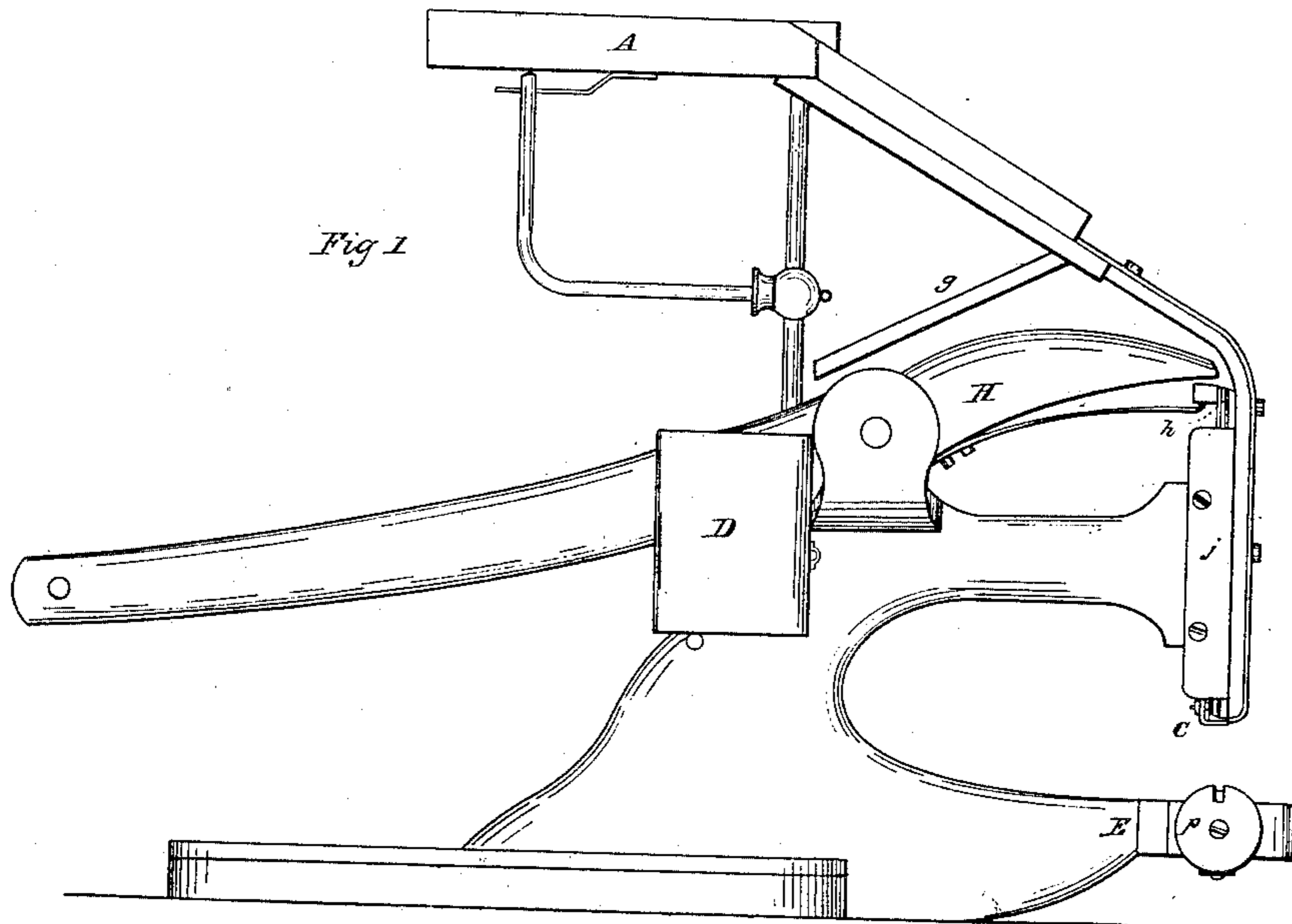


No. 37,124.

PATENTED DEC. 9, 1862.

J. H. BAIRD.  
APPARATUS FOR APPLYING CLASPS TO SKIRTS.



Witnesses  
Anson Anderson  
H. L. Bennett

Inventor  
Joseph H. Baird  
by his attorney  
C. L. Remick

# UNITED STATES PATENT OFFICE.

JOSEPH H. BAIRD, OF WATERBURY, CONNECTICUT, ASSIGNOR TO  
JEDEDIAH WILCOX, OF NEW YORK, N. Y.

## IMPROVEMENT IN APPARATUS FOR APPLYING CLASPS TO SKIRTS.

Specification forming part of Letters Patent No. 37,124, dated December 9, 1862.

### *To all whom it may concern:*

Be it known that I, JOSEPH H. BAIRD, of Waterbury, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Machines for Applying Clasps to Hoop-Skirts; and I do hereby declare that the following is a full, clear, and exact description of my said invention, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of a machine embodying my improvements. Fig. 2 is a plan of the same. Fig. 3 is a front elevation of the same. Fig. 4 is a transverse section of a portion of the same. Fig. 5 is a horizontal section of the slide and its connections; and Figs. 6 and 7 are views of the hinder side of the slide, showing the escapement-jaws in two different positions.

A machine for applying clasps to the hoops of hoop-skirts was invented by Bela A. Mann, by which machine the clasps thrown promiscuously into a hopper are fed to a clasp-supplying device, from which they are applied in succession to and clasped upon the hoops of the skirt that are presented to the machine. In this machine the parts are so arranged that in the operation of clasping the whole skirt which is being operated upon is raised at the application of each clasp. This arrangement is objectionable; and the object of my invention is to permit the skirt to remain in one place during the operation of applying all the clasps, by which means the operation of clasping is greatly facilitated.

My invention consists, first, in the combination of a rest for the hoops of the skirt with clasp-feeding and clasp-supplying devices by means of a moving clasp-carrying device which receives the clasps in succession, and carries them to the skirt-hoop presented to the machine.

The second part of my invention consists in constructing the clasp-carrier in such manner and in so combining it with the clasp-supplier that it not only carries the clasp, but also forms a gate which prevents the escape of clasps from the clasp-supplier.

The third part of my invention consists in constructing the clasp-carrier in such manner and in so combining it with the hoop-rest that it not only carries the clasp, but also

forms one of the members by which the clasp is applied to the hoop.

The general appearance of the machine in which I have embodied my improvements is similar to that of Bela A. Mann, as it contains a hopper, a clasp-feeding device, a clasp-supplying device, and a clasp-clinching device.

The hopper A consists of an inclined bottom plate surrounded by sides, and having at its lower part a gateway, *b*, from which the clasps are discharged by the jar of the machine. This hopper may either be fixed in its position or may be made adjustable. The clasp-feeder consists of an inclined plate, *C*, fitted with a grooved guide-bar, *d*, so located that the clasps sliding down the table come in contact with the guide-bar, and are by it caused to enter into the clasp-supplier. The plate *C* is perforated with an opening, *f*, through which such clasps as do not assume proper positions to enter the clasp-supplier are permitted to escape, so that they may pass down a chute, *g*, into a receptacle, *D*, beneath. The clasp-supplier consists of an upright flat passage or tube, *a*, slotted at its front side to permit the tongues of the clasps to project from it. It receives the clasps at its upper end, holds a number in a row, and supplies them in succession to the clasp-carrier that takes them to the hoop of the skirt. The clasp-carrier consists, in the machine represented, of a slide, *h*, moving vertically in guides *j j*, and fitted at its lower end with a pair of jaws, *c c*. These jaws are at a sufficient distance from the end of the slide *h* to form a receptacle, *e*, in which the plate of a single clasp is held with its tongues projecting down between the lips of the jaws. The shanks of these jaws are bent upward, and are pivoted to the hinder side of the slide, so that the jaws can be opened to permit the clasps to escape, and the jaws are drawn toward each other by a spring of india-rubber, *m*, to cause them to hold the clasp until they are opened. Below the slide *h* is the skirt-rest, which consists of a stationary arm, *E*, having a small grooved block of steel, *n*, immediately beneath the lower end of the slide *h*, so that when the slide *h* is depressed, the tongues of the clasp carried by its jaws are impelled against the grooved block *n*, and are by it caused to clinch. The grooved block *n* forms a hoop-

rest, on which the hoop to which the clasp is to be applied is supported. It has at each side of it a notched plate, *p*, forming a guide for the hoop, so that the operator can place the hoops with facility over the hoop-rest to bring each point at which a clasp is to be applied in succession beneath the slide and its appurtenances, which constitute the clasp-carrier. The upper surface of the hoop-rest *n* is curved convexly, and the lower surfaces of the jaws *c c* are beveled, so that the striking of the latter against the former opens the jaws and permits the clasp held by them to pass between the jaws when they are withdrawn from the hoops by the rise of the clasp carrier. The clasp-carrier is operated, in this instance, by a lever, *H*, which is connected with a treadle to be worked by the operator's foot, a spring being used to return the device to its uppermost position. Its range of motion upward is such that when at its highest position the receptacle within its jaws is opposite to the mouth of the clasp-supplying device, so that it then receives a clasp, which is pushed edgewise into it from the lower end of the clasp-supplier *a* by the pressure of the column of clasps above, the lower end of the clasp-supplier being bent, as seen at Fig. 4, for this purpose. The face of the slide of the clasp-carrier also moves in close proximity to the mouth of the clasp-supplier, so that it forms a gate which closes the mouth of the clasp-supplier and prevents the escape of clasps

during the claspings. The movement of the clasp carrier need not necessarily be in a straight line, because it is obvious that it might be made to move in the arc of a circle, provided the hoop-rest be properly located. To present the hoop to receive the clasp, all that is necessary is that the clasp-carrier should be moved in such manner that it will receive clasps from the clasp-supplier and carry them onward in the machine, to be subsequently clinched upon the hoop.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of a hoop-rest, a clasp-feeder, a clasp-supplier, and a moving clasp-carrier, the combination, as a whole, operating substantially as set forth.

2. The combination of a clasp carrier with the clasp supplier in such manner that the clasp-carrier forms a gate or stop to prevent the escape of clasps, the combination, as a whole, operating substantially as set forth.

3. The combination of a clasp-carrier with the hoop-rest in such manner that the clasp-carrier forms one of the members by which the clasp is clinched upon the hoop.

In testimony whereof I have hereunto subscribed my name.

JOSEPH H. BAIRD.

Witnesses:

NORTON J. BUEL,  
THEODORE S. BUEL.