

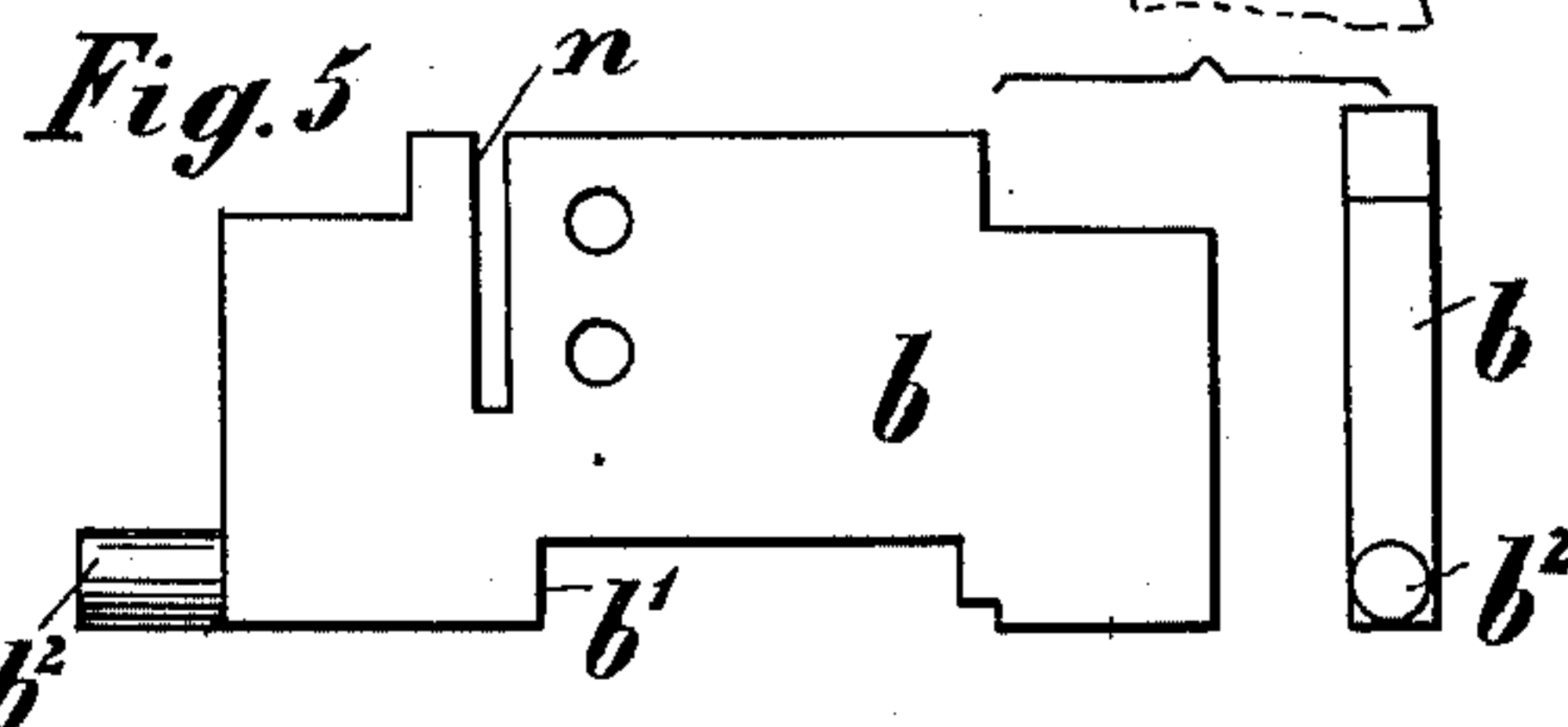
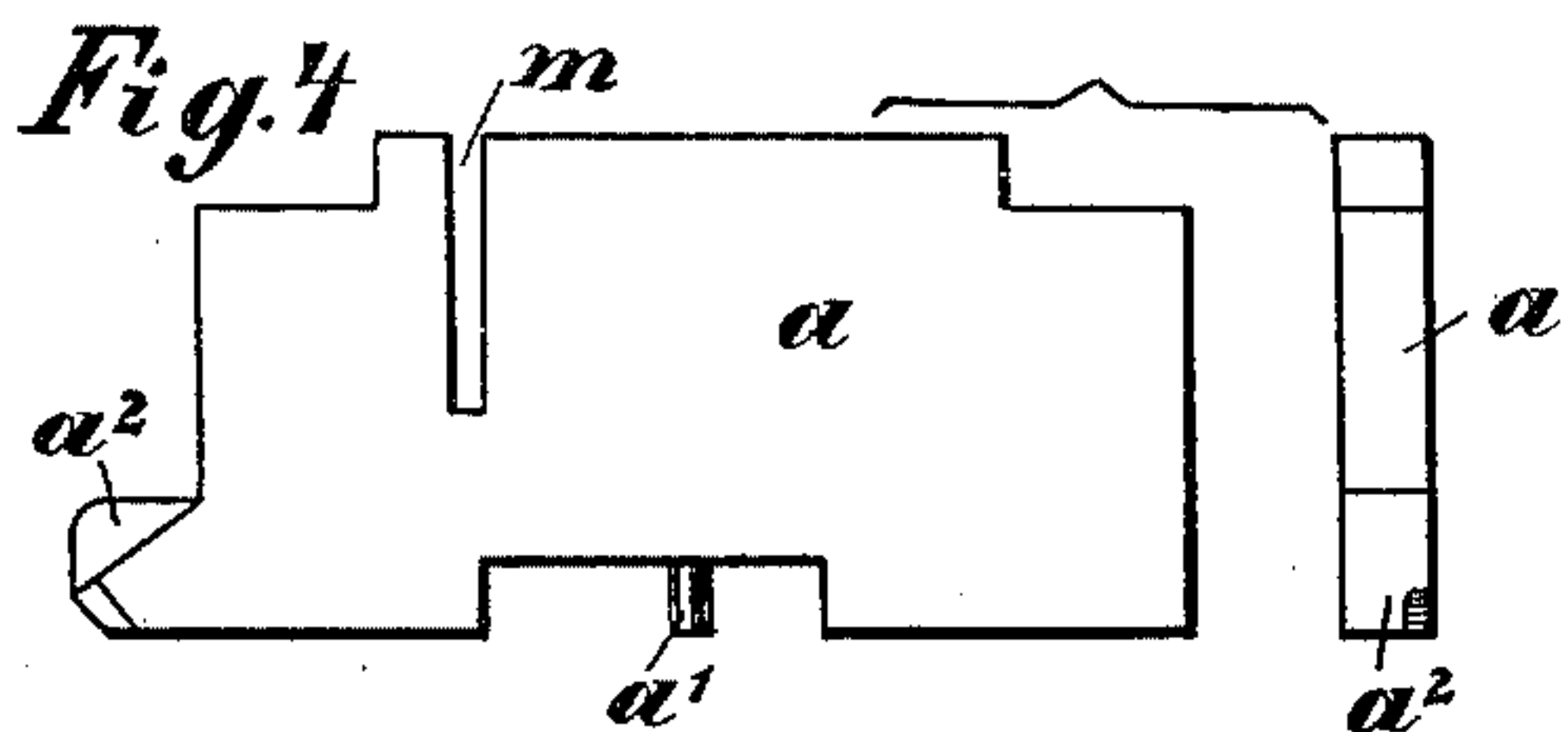
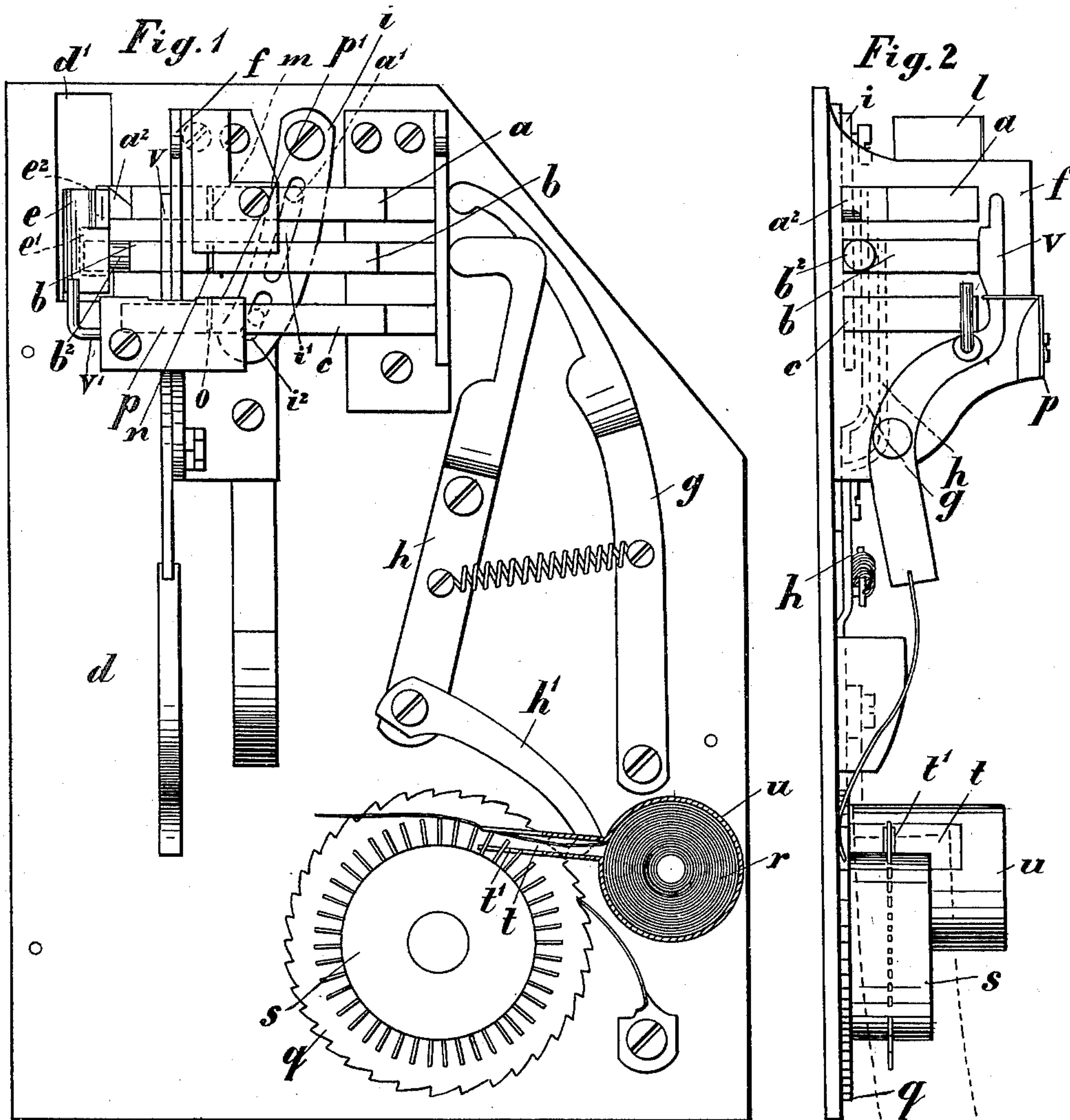
(No Model.)

3 Sheets—Sheet 1.

F. BEHLOW.
COIN CONTROLLED FOLDING STOOL.

No. 592,558.

Patented Oct. 26, 1897.



Witnesses
H. E. Dotyner
Paul Folber

Inventor
Felix Behlow
by his Attorneys
Dr. J. Scham & Co

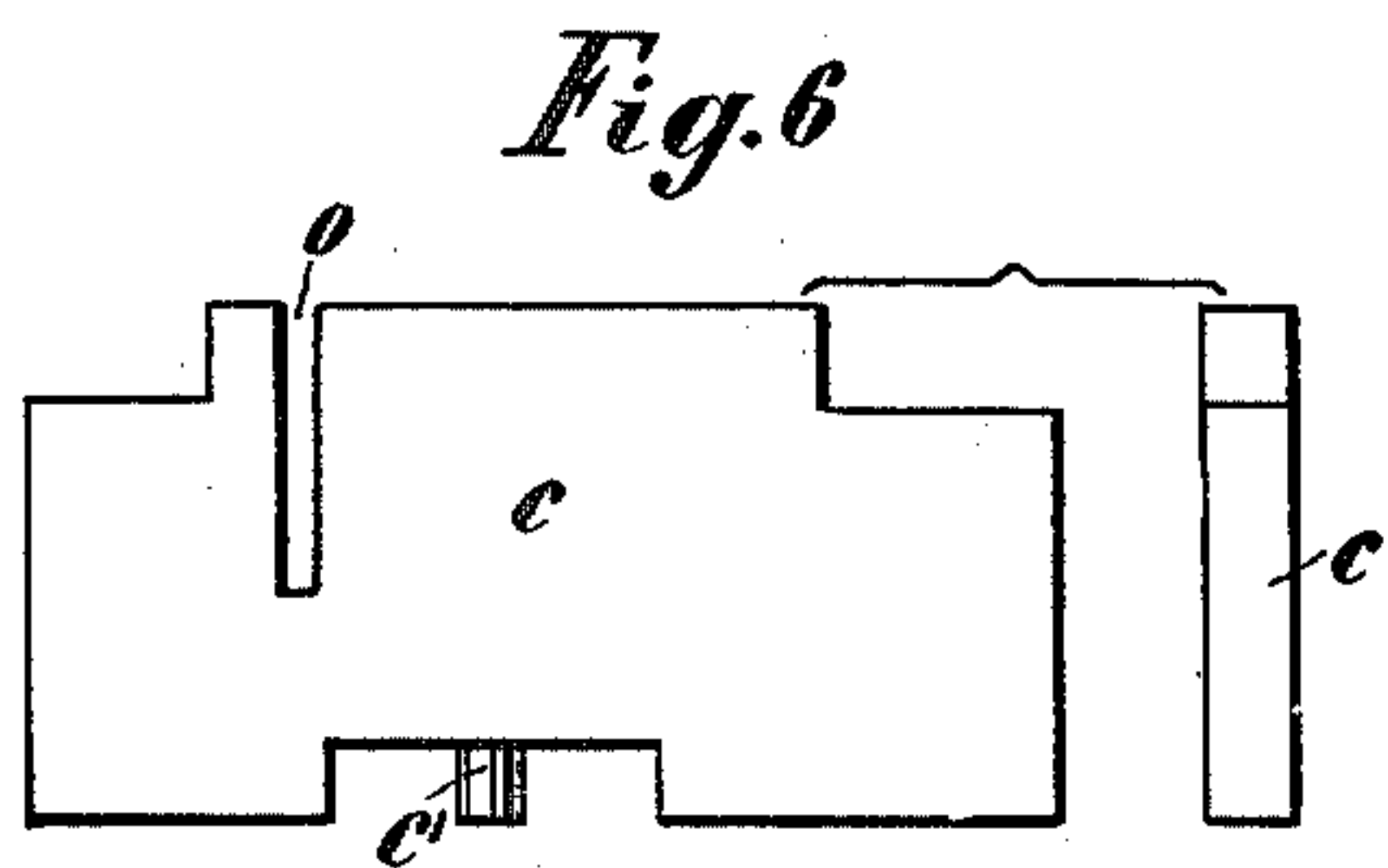
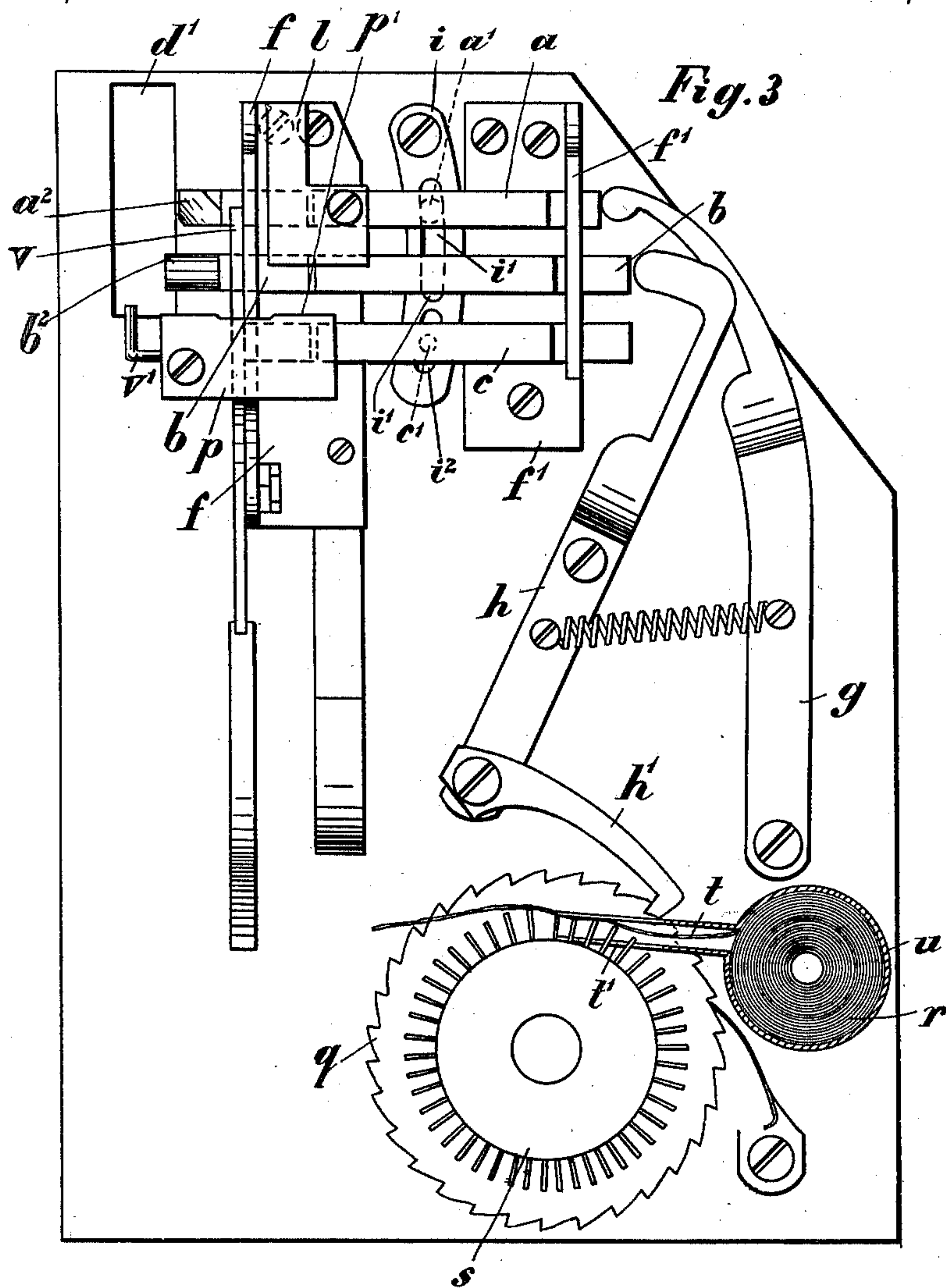
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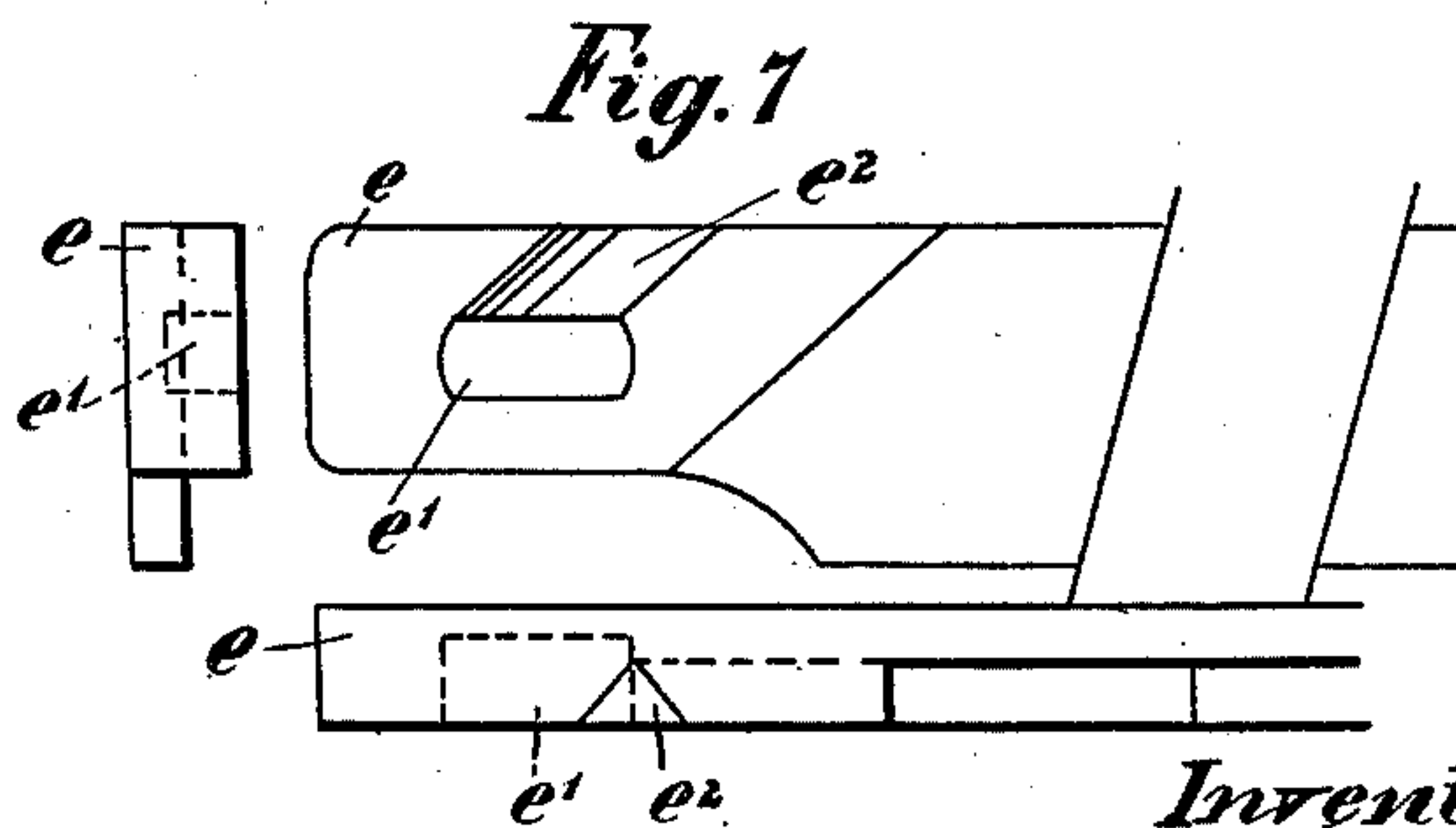
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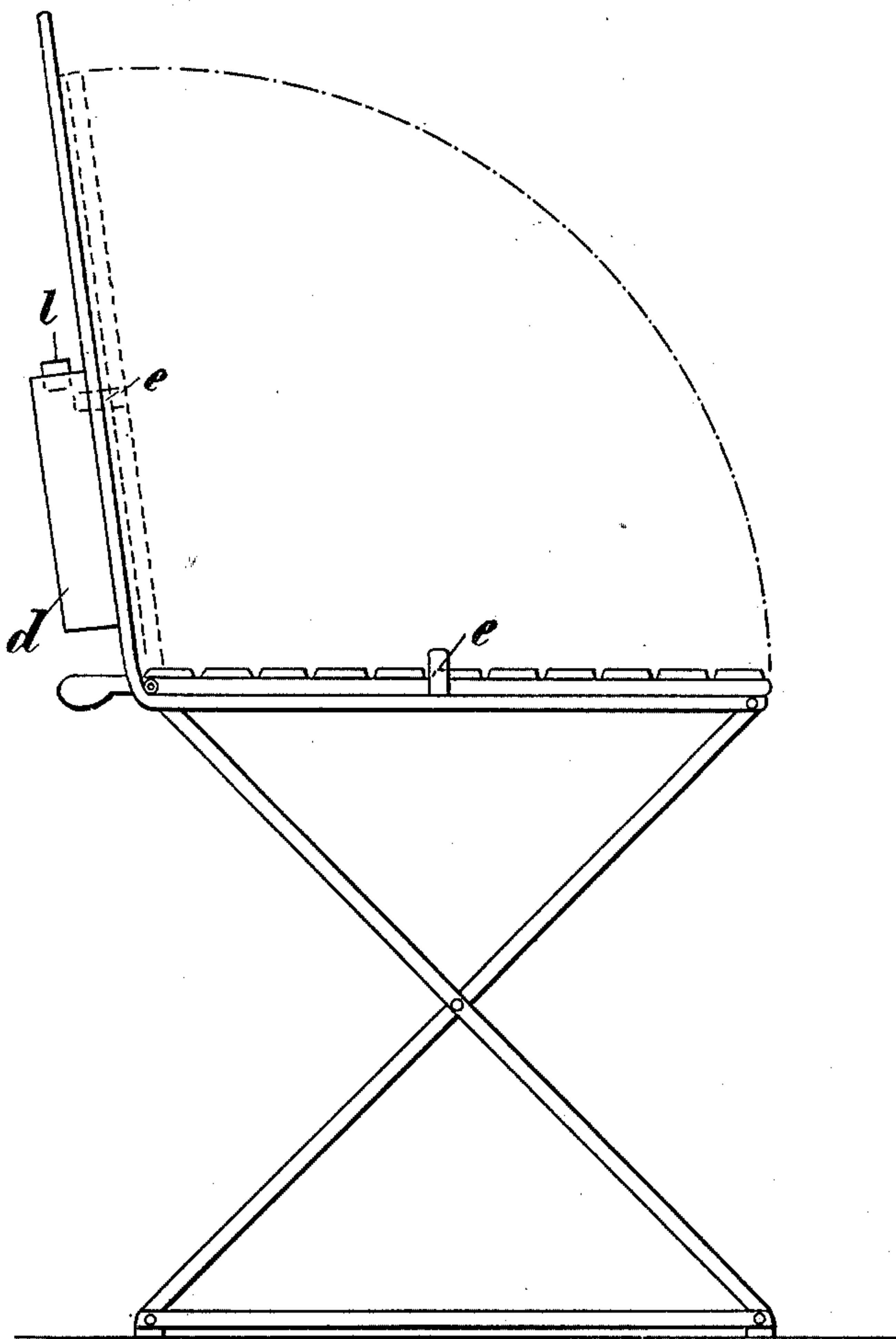
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Fig. 8



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UNITED STATES PATENT OFFICE.

FELIX BEHLOW, OF BERLIN, GERMANY.

COIN-CONTROLLED FOLDING STOOL.

SPECIFICATION forming part of Letters Patent No. 592,558, dated October 26, 1897.

Application filed December 20, 1895. Serial No. 572,790. (No model.) Patented in Germany August 2, 1895, No. 87,196; in France November 15, 1895, No. 251,729; in England November 16, 1895, No. 21,809, and in Austria July 29, 1896, No. 46/3,034.

To all whom it may concern:

Be it known that I, FELIX BEHLOW, merchant, of 43 Klosterstrasse, Berlin, in the Kingdom of Prussia, German Empire, have
5 invented new and useful Improvements in Automatic Folding Stools, (for which I have obtained a patent in Germany, No. 87,196, bearing date August 2, 1895; in France, No. 251,729, bearing date November 15, 1895; in
10 Great Britain, No. 21,809, bearing date November 16, 1895, and in Austria, No. 46/3,034, bearing date July 29, 1896,) of which the following is a specification.

This invention relates to a folding chair or
15 seat which is held fast in a raised position by means of special locking mechanism and which can only be lowered for use by the insertion into the mechanism of a coin of a given size, whereby its release can be effected.

20 The principal feature of this invention is the certainty of action of the mechanism, whereas coin-freed folding chairs or seats as heretofore made and used have been found imperfect owing to uncertainty of action—
25 for instance, by an oblique position of the mechanism or by an unforeseen alteration of the equilibrium of the working parts.

The invention is represented in its essential parts in the accompanying drawings.

30 Figure 1 is an interior view of the mechanism, showing the position of the parts where the chair or seat is held fast in a folded-up position; and Fig. 2 is a side view of same. Fig. 3 is a view similar to Fig. 1, showing the
35 position of the parts when the chair or seat is liberated; and Fig. 4 shows views of the sliding plate *a*. Fig. 5 shows views of the bolt *b*. Fig. 6 shows views of the sliding plate *c*. Fig. 7 shows views of the keeper *e*.
40 Fig. 8 shows, diagrammatically, a folding chair supplied with the locking mechanism.

The same letters of reference where they occur are used to denote the same or corresponding parts in all the figures.

45 The locking mechanism is contained within the casing *d* and is withdrawn from the keeper *e*, which is carried by the chair or seat, by the insertion of a coin through the coin-aperture *l*. The locking mechanism consists, essentially,
50 of two sliding plates *a* and *c* and a bolt

b, (shown detached in plan and edge views in Figs. 4, 6, and 5, respectively,) which slide in partitions *f f'*, secured to the casing *d*, and by means of the spring-controlled levers *g* and *h* the sliding plate *a* and the bolt *b* are
55 normally kept in front of an aperture *d'* in the casing *d*.

i is an arm pivoted at its upper end to the casing *d* and having curved slots *i'* and *i''*, in which engage the pins or pegs *a'* and *c'* of the
60 sliding plates *a* and *c*, respectively, so that said sliding plates are caused to move conjointly. By means of the sliding plate *c* being farther away from the center of the slotted arm *i* it has a longer longitudinal travel
65 than the upper sliding plate *a*.

When the bolt *b* is retracted, it presses with its shoulder *b'* against the lateral end of the slotted arm *i*, takes this along with it, and in
70 this manner simultaneously moves backward the two sliding plates *a* and *c*.

When the sliding plates *a* and *c* and the bolt *b* are retracted, a spring-controlled catch-lever *v*, having a lateral arm *v'*, holds them
75 in the retracted position until the catch-lever *v* is released by the keeper *e* in the manner hereinafter described.

When the chair or seat is raised, which may be effected by spring-power, balance, or by hand, the keeper *e* enters the casing *d* through
80 the aperture *d'*. The keeper *e*, which is shown detached in front, side, and plan views in Fig. 7, is provided with a lateral slot *e'*, and over this is a second slot *e''*, whose front flank is shaped obliquely toward the outside.
85

When the keeper *e* enters the aperture *d'*, it strikes against the lateral arm *v'* and releases the catch-lever *v* from before the sliding plates *a* and *c* and bolt *b*. The pin *b''* on
90 the front edge of the bolt *b* is then by the pressure of the spring-controlled lever *h* caused to enter the lateral slot *e'* in the keeper, and similarly the inclined projection *a''* in the front edge of the sliding plate *a* is by the lever *g* caused to enter the oblique slot *e''*.
95

The chair or seat, now held fast in the manner above described, is released in the following way: Each of the sliding plates *a* and *c* and the bolt *b* is provided with a slot *m o n*,
100 and when the chair is in the locked-up posi-

tion shown in Fig. 1 these slots are in register and are situated immediately under the coin-aperture l . These slots allow of the insertion through the coin-aperture l of a coin of given size until its lower edge rests on a tongue-piece p' on the plate p , secured to the partition f . By means of the inserted coin, which now lies in the slots m , n , and o , the bolt b is coupled to the sliding plates a and c in such a manner that the three parts move conjointly. After the insertion of the coin in the aperture l when pressure is put on the seat to fold it down and to disengage the keeper e from the locking mechanism the inclined projection a^2 on the sliding plate a is by the pressure of the oblique slot e^2 caused to slide away, and the sliding plate a is thereby forced backward, and simultaneously also the sliding plate c and the bolt b are forced backward by reason of the slotted arm i and the inserted coin lying in the slots m , n , and o . Consequently the keeper e is free and the chair or seat can be pulled down without hindrance.

The pin b^2 on the bolt b , which particularly holds the keeper e , enters deeper therein than the inclined projection a^2 in the sliding plate a . The bolt b has therefore on that account to travel farther than the sliding plate a in order to completely draw the pin b^2 from the keeper. For this reason the sliding plate c is, as already shown, arranged so as to have a longer travel than the upper sliding plate a , and the bolt b , being coupled between the two sliding plates by the coin, receives accordingly a medium travel, which is greater than that of the upper and less than that of the lower sliding plate. Thereby it follows that on account of the longer travel the pin b^2 enters deeper into the keeper than the inclined projection a^2 . Now after the keeper e is removed from the casing d , as above described, the sliding plates a and c and the bolt b are held back in their retracted position by the spring-controlled lever v .

During the passage of the bolt and connected parts from the slot to the retracted position the coin is carried over the tongue-piece p' on the plate p , and when the bolt is fully retracted the coin has passed the said tongue-piece and is free and falls into a cash-receptacle beneath.

The registering apparatus shown in the lower parts of Figs. 1 to 3 consists, essentially, of a ratchet-wheel q , carrying a spiked rollers, and by the revolutions of the ratchet-wheel the spikes are caused successively to enter a slit t' in a guide-passage t , through which passes the end of a roll of paper r , contained in a box u . h' is a pawl secured to the end of the lever h , and at every movement of the latter on its pivot the pawl h' causes the ratchet-wheel q to advance one tooth. As the number of the spokes on the roller s is equal to the number of teeth on the ratchet-wheel

q , every movement of the pawl h' produces a perforation on the paper-roll r and the paper is advanced a distance equal to that between two succeeding spikes on the roller s , the paper being drawn forward by the two preceding spikes. It is thus possible to ascertain the number of times the chair or seat has been used, and consequently to check the number of coins which should be in the machine by counting the number of perforations in the paper strip.

After every use of the chair or seat and by the rising of the person using the same the seat folds back automatically by the action either of a spring or balancing arrangement, as before described, or by any other suitable means. The keeper e enters the aperture d' in the casing d , strikes with its foremost edge against the pin v' of the catch-lever v , and forces the latter back. Thereby the sliding plates a and c and the bolt b are released and the inclined projection a^2 and pin b^2 slip again into the slots e^2 and e' of the keeper, and the chair or seat remains locked until another coin is inserted into the machine.

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

1. A coin-freed folding chair or seat consisting of a keeper secured to the seat and having slots e' and e^2 respectively engaging the bolt b and sliding plate a contained in the casing d a second sliding plate c linked to the sliding plate a by a pivoted arm i in such a way, that the second sliding plate has a longer travel than the first, registering slots m o and n in the plates a and c and bolt b respectively whereby they can be coupled together by an inserted coin and move conjointly when the keeper is withdrawn by reason of the obliquity of the slot e^2 in the keeper and projection a^2 on the sliding plate a , all parts being arranged to operate substantially as hereinbefore described and illustrated in the accompanying drawings and for the purpose stated.

2. In coin-freed folding chairs or seats, a registering mechanism consisting of a ratchet-wheel q carrying a spiked roller s , operated by a pawl h' on the lever actuated by the retracting-bolt b of the coin-freed folding chair or seat, the spiked roller for pricking holes in and unwinding a strip of paper from a roll r , arranged substantially as and for the purpose hereinbefore described and illustrated in the accompanying drawings.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

FELIX BEHLOW.

Witnesses:

W. HAUPT,
GÜTZLAFF.