

J. F. FORKARTH.
TYPE WRITING MACHINE.
APPLICATION FILED SEPT. 26, 1906.

918,308.

Patented Apr. 13, 1909.

Fig. 1.

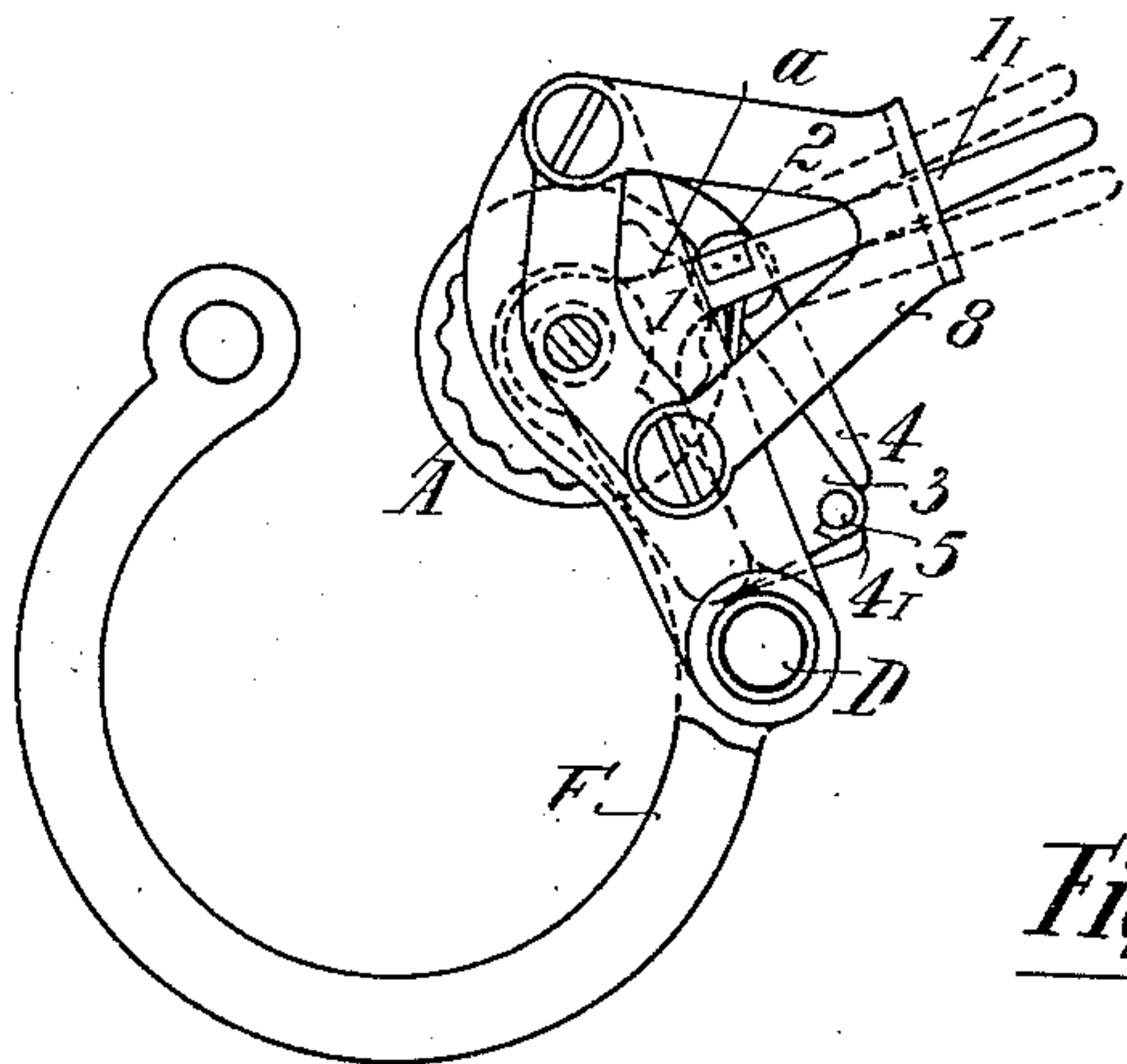


Fig. 2.

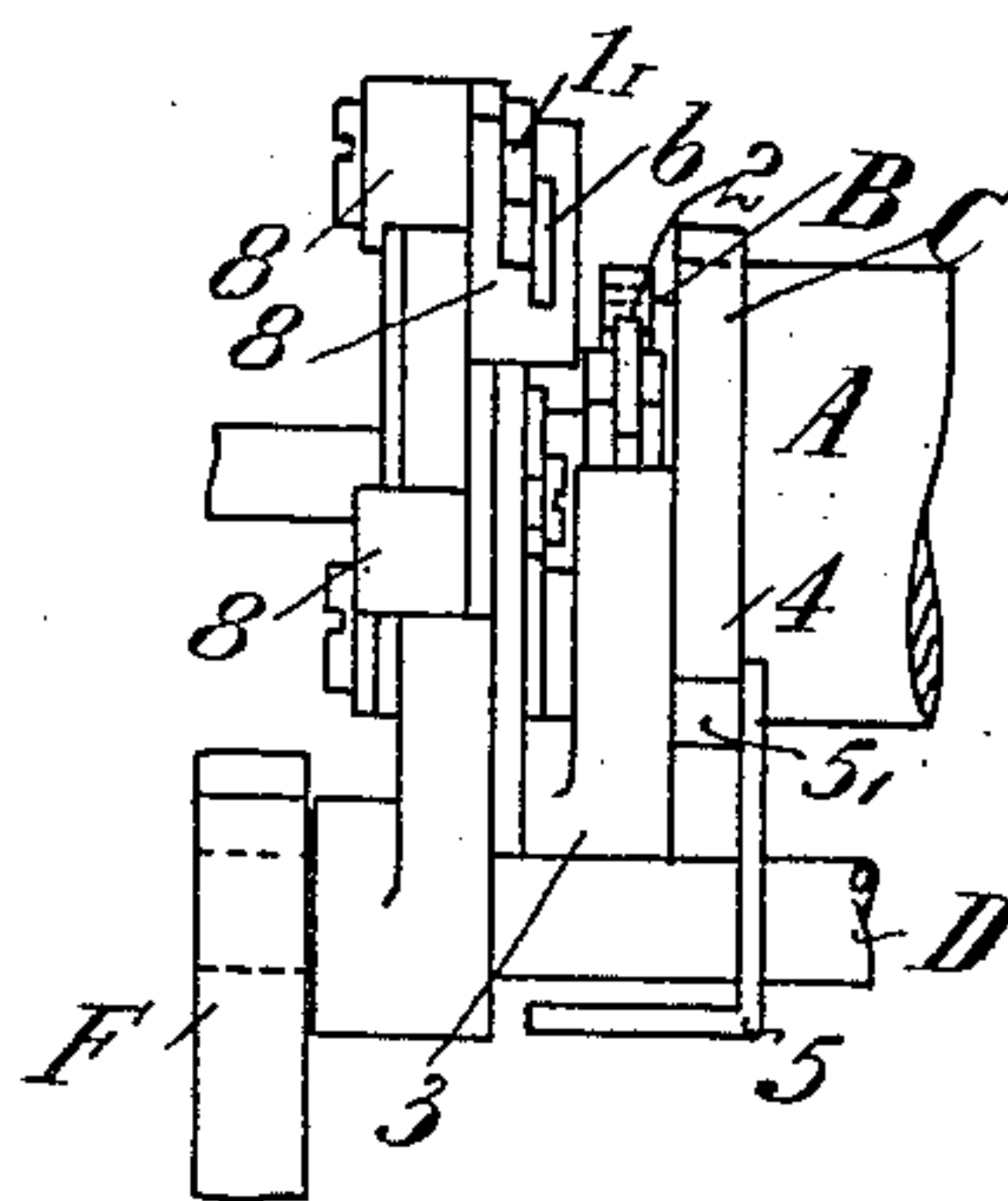


Fig. 6.

Fig. 3.

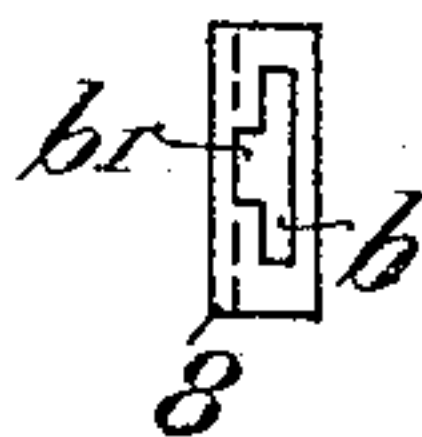


Fig. 4.

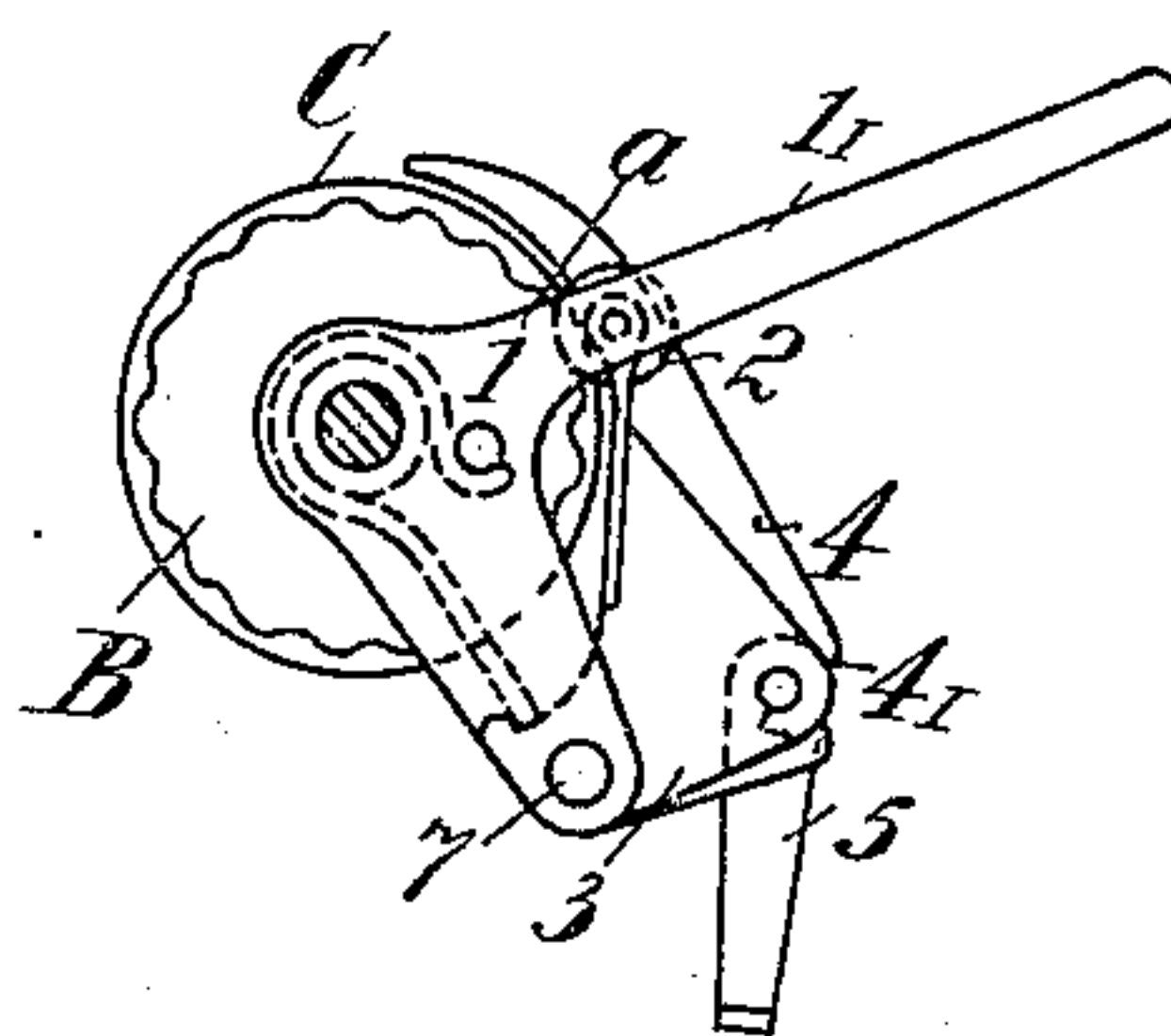
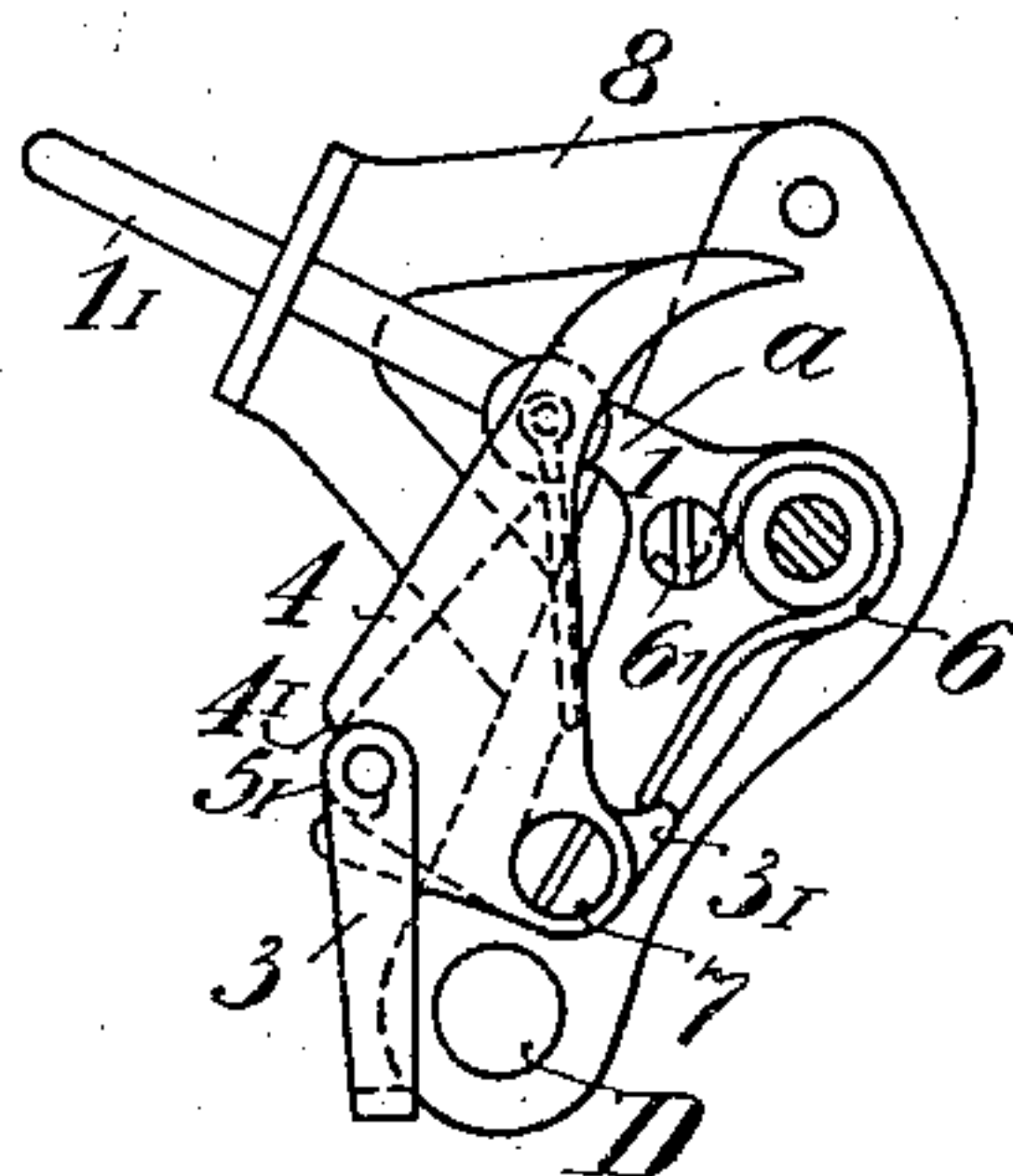
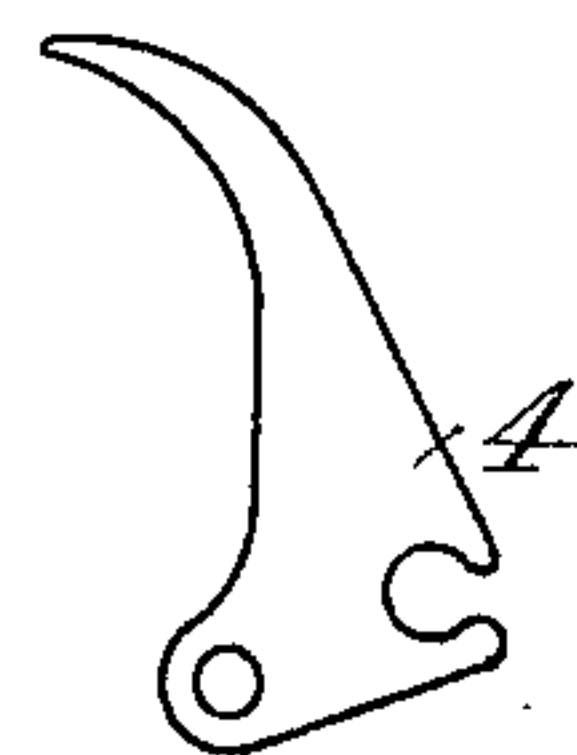
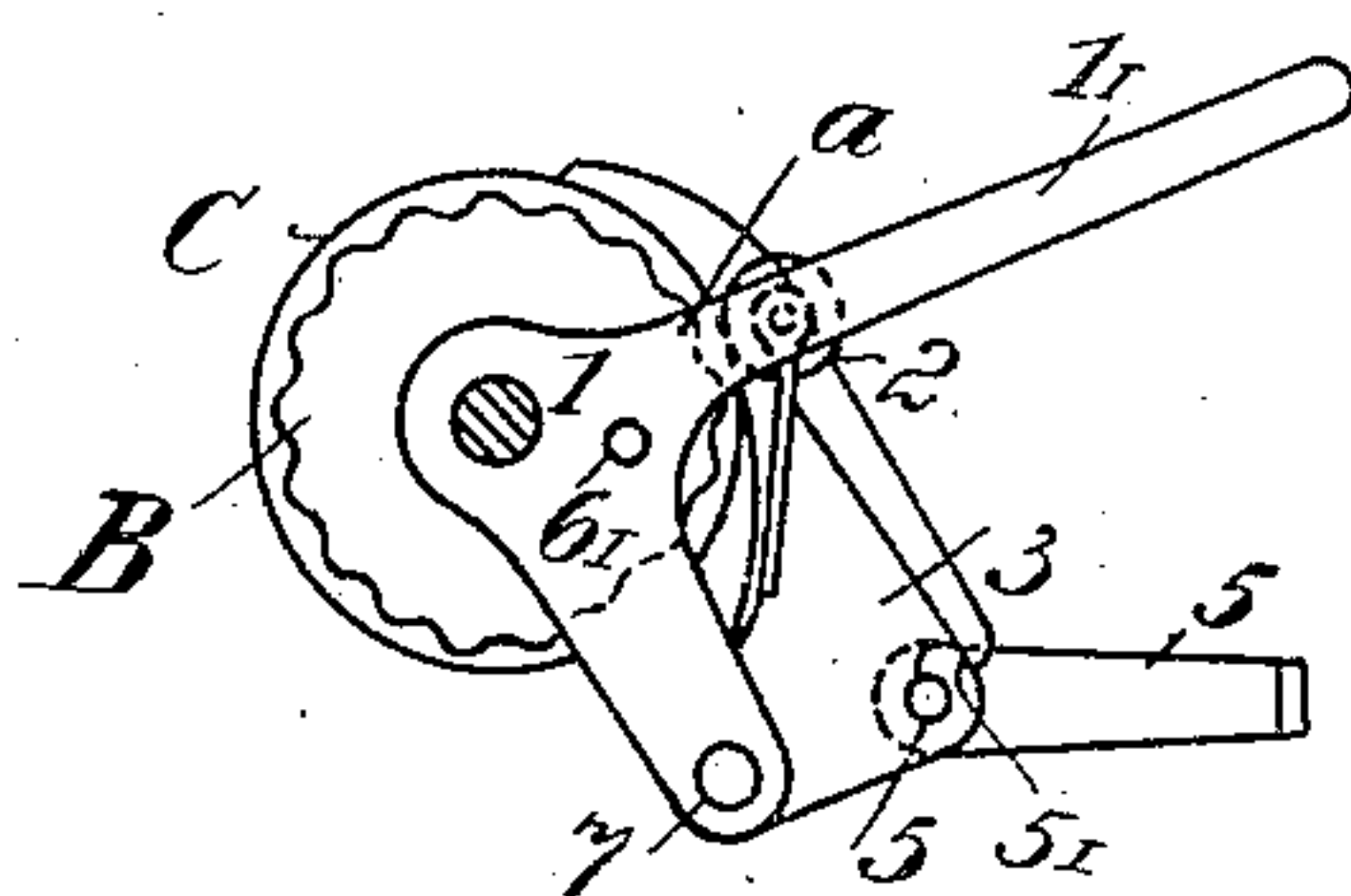
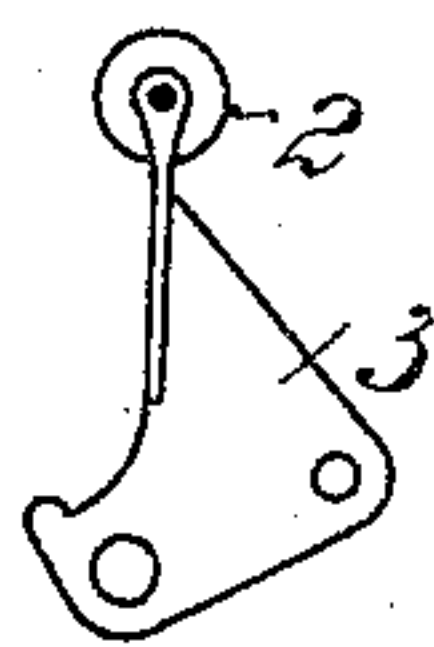


Fig. 7.

Fig. 5.

Fig. 8.



Witnesses

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UNITED STATES PATENT OFFICE.

JOSEF FRANZ FORKARTH, OF INNSBRUCK, AUSTRIA-HUNGARY, ASSIGNOR, BY MESNE ASSIGNMENTS, TO LEE S. BURRIDGE, OF NEW YORK, N. Y.

TYPE-WRITING MACHINE.

No. 918,308.

Specification of Letters Patent.

Patented April 13, 1909.

Application filed September 26, 1906. Serial No. 336,341.

To all whom it may concern:

Be it known that I, JOSEF FRANZ FORKARTH, a citizen of the Empire of Austria-Hungary, and resident of Innsbruck, in the Empire of Austria-Hungary, have invented a certain new and useful Improvement in Type-Writing Machines, of which the following is a specification.

My invention relates to type-writing machines, and its object is to provide improved means for enabling the operator to write certain characters or symbols at regular distances above or below the general line of impression when required, as is sometimes the case, for instance, when writing fractions or certain characters of reference, such as "m³" or "2^h" (where the numeral "3" and the letter "h" require to be written somewhat raised), or when writing atonic symbols, such as "C₂" (where the numeral "2" requires to be written farther below). I attain this object by means of the mechanism hereinafter described and shown in the accompanying drawing as applied to the paper roller of a type-writing machine of the well known Hammond system.

In the accompanying drawing illustrating my invention Figure 1 is an elevation showing my improved mechanism as it appears when looking upon the end of the paper roller of a type-writing machine. Fig. 2 is a view as seen from the right hand side of Fig. 1, with parts broken away and other parts omitted. Fig. 3 is an elevation of the same mechanism viewed from the opposite side to that shown in Fig. 1, with parts omitted. Figs. 4 and 5 show details of the mechanism in elevation with the parts in different positions, some other parts being omitted. Fig. 6 is an end view of a detail to be described. Fig. 7 is a side view of the roller arm. Fig. 8 is a side view of the brake arm.

A is the usual paper roller of the type-writing machine. E is one of the side parts of the carrier frame F supporting the said paper roller and mounted on the frame part D.

B is a disk having rounded teeth or corrugations on its periphery and secured to or formed on the paper roller A at one end of the latter.

C is an elevated peripheral portion formed on or applied to the paper roller near the disk B and consisting either of the same

material as that of the paper roller or of any suitable metal.

Secured to the carrier part E, preferably by screws as shown, is a frame 8 provided at its flanged outer end with a longitudinal guide slot *b* having a lateral recessed portion or notch *b'*, as more clearly shown in the end view of this part, Fig. 6. An angular lever 1 mounted to turn on the journal or axis of the paper roller A extends with its upper arm 1' through the guide slot *b*, as shown in Figs. 1 and 2. This lever arm 1' is formed as a spring exerting a slight lateral pressure within the guide slot so as to drop into, and securely engage in, the notch *b'* when moved into position opposite the latter. The opposite or lower arm of the said lever 1 has screwed thereto, or otherwise secured thereto, a pin 7 on which are fulcrumed an arm 3 and a brake arm 4, the former having a roller 2 adapted to engage the teeth or corrugations of the disk B upon the arm 3 being suitably turned on its pin 7, and the brake arm 4 extending toward the elevated peripheral portion C of the paper roller A so as to be brought into engagement there- with upon the said brake arm 4 being suitably turned on the pin 7. A spring 6 surrounding the hub portion of the lever 1 rests with its one end against a screw 6' and presses with its other end against a lug 3' formed on the arm 3, thereby acting to firmly press the roller 2 of the said arm into engagement with the teeth or corrugations of the disk B and to thus securely hold the paper roller in the respective positions determined by the interstices of the said teeth or corrugations.

The arm 3 has fulcrumed to it a small hand lever 5 the lower end of which, as shown in Fig. 3, has a rectangular bend for convenience in handling. A cam portion 5' formed on this hand lever is received within a notch or recess 4' provided in the brake arm 4. Thus, when the hand lever is turned upward so as to thereby raise the brake arm 4, the upper curved portion of the latter will first engage the peripheral portion C of the paper roller and, in the further rotation of the cam portion 5', the roller 2 of the arm 3 will be raised away from, and out of engagement with, the teeth or corrugations of the disk B, so that the paper roller will then be held in position by the brake arm.

4 and not any longer by the roller 2. This position of the parts is shown in Fig. 5. Upon the hand lever 5 being then lowered again the roller 2 will first return into engagement with the teeth or corrugations of the disk B, and then the brake arm 4 will recede from and release the paper roller. See Fig. 4. In this wise the paper roller is, by means of the arm 3 and its roller 2 on the one hand and by means of the brake arm 4 on the other hand, brought into such relation with the angular lever 1 that the paper roller must always follow any adjusting movement imparted to the said lever in the one or the other direction. Hence, when the operator desires to so adjust the position of the paper roller as to cause the point of impression on the sheet of paper to come a little above the usual line of impression he will raise the lever arm 1' out of the notch b' and move it to one end of the guide slot b, whereas when he desires to bring the point of impression a little below the usual line of impression he will move the said lever arm to the other end of the guide slot. In order to then continue on the usual line of impression again the operator will return the lever arm 1' into engagement with the notch b'.

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

1. In a type-writing machine the combination, with a paper feed roller, of a line adjusting lever for turning said roller in either direction, means for limiting the movement of the said lever in opposite directions and means for bringing the said lever into and out of operative engagement with the said paper feed roller, substantially as and for the purpose described.

2. In a type-writing machine the combination, with a paper feed roller, of a movable lever, means for limiting the movements of the said lever in opposite directions, means

for bringing the said lever into and out of operative engagement with the said feed roller and means for retaining the said lever in an intermediate position, substantially as and for the purpose described.

3. In a type-writing machine the combination, with a paper feed roller, of a line adjusting angular lever fulcrumed in the line of the axis of the paper feed roller for turning said roller in either direction, a fixed guide receiving one arm of the said lever and having an intermediate retaining recess, a brake arm fulcrumed to said angular lever and adapted to engage the paper feed roller, a disk rigidly mounted on the axis of the paper feed roller and having peripheral corrugations, a roller arm fulcrumed to the angular lever and normally engaging the corrugations of the said disk and means for moving the brake arm into and out of engagement with the paper feed roller and moving the roller arm out of and into engagement with the disk, substantially as and for the purpose described.

4. In a type-writing machine a paper feed roller having a corrugated peripheral portion and a peripheral braking portion, an angular lever fulcrumed on the axis of the paper feed roller, a fixed guide receiving an arm of said angular lever and having an intermediate locking recess, a brake arm and a roller arm both fulcrumed to said angular lever, a spring on said angular lever acting upon said roller arm, a hand lever fulcrumed to the said roller arm, a cam on said hand lever engaging with the said brake arm, substantially as and for the purpose described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOSEF FRANZ FORKARTH.

Witnesses:

ABRAHAM SCHLESINGER,
LOUIS MUELLER.