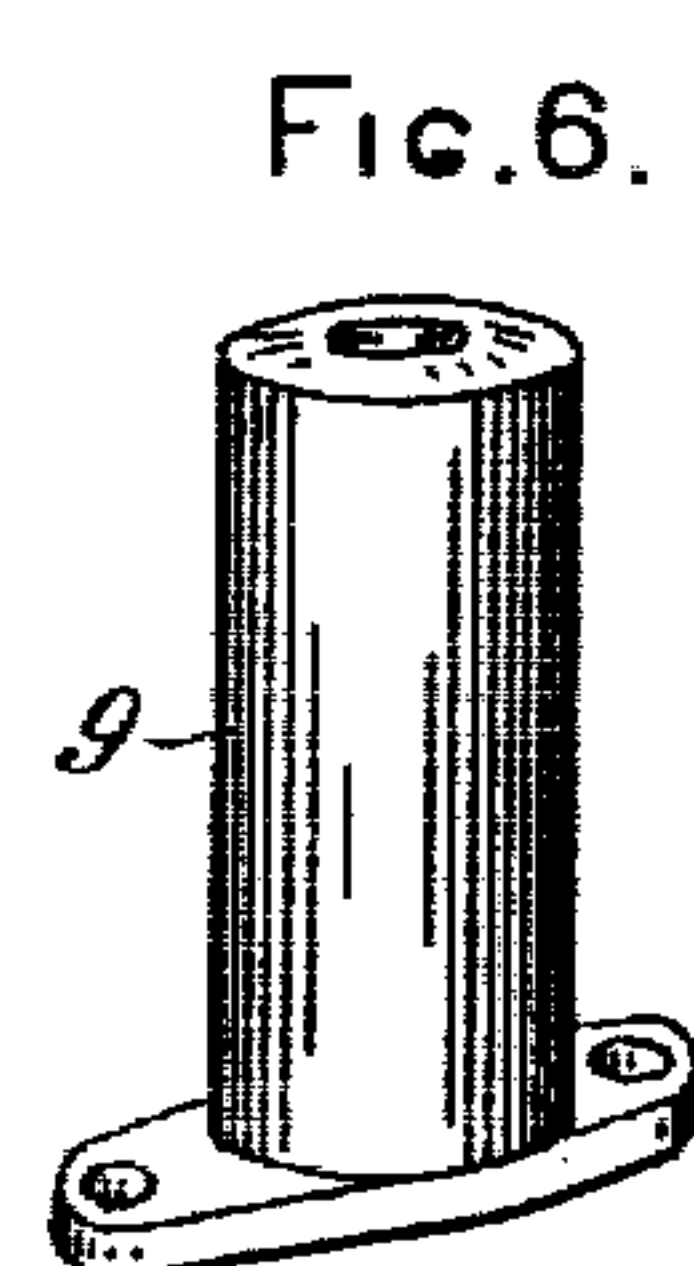
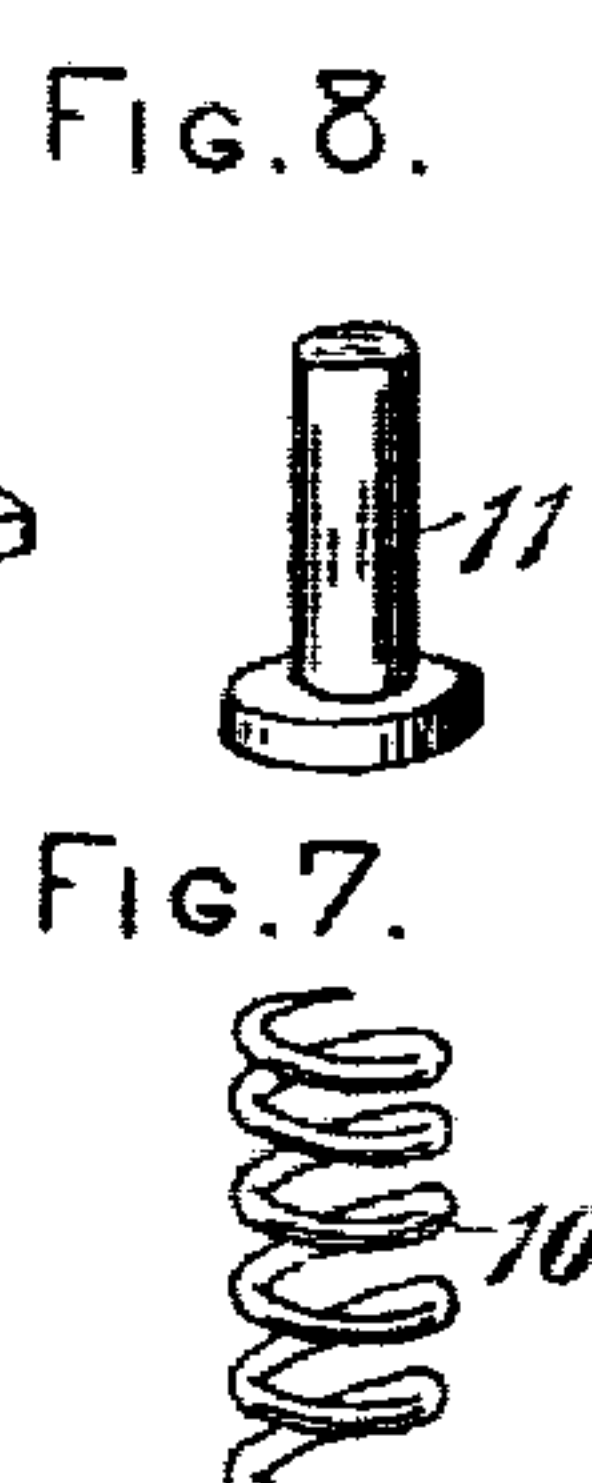
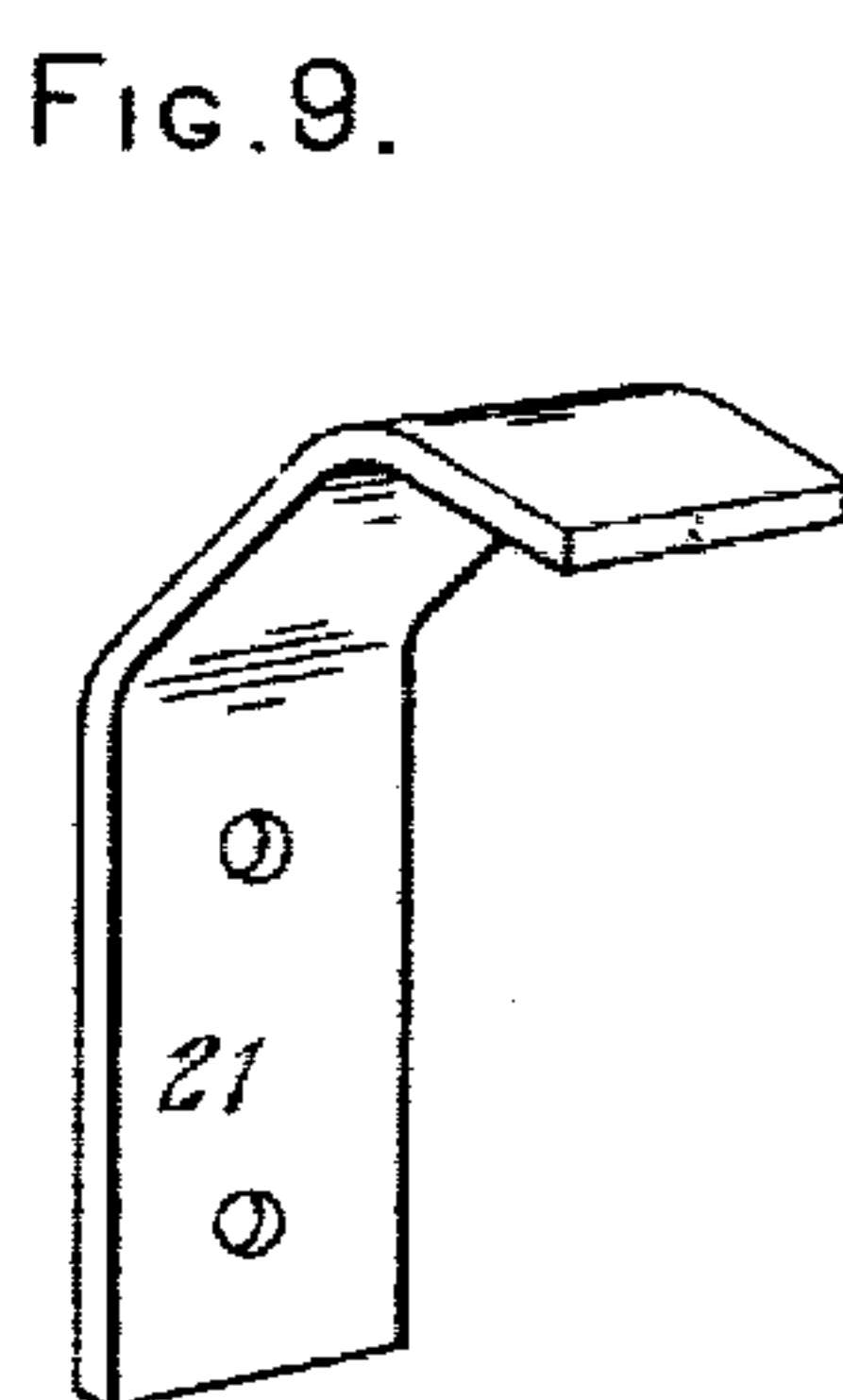
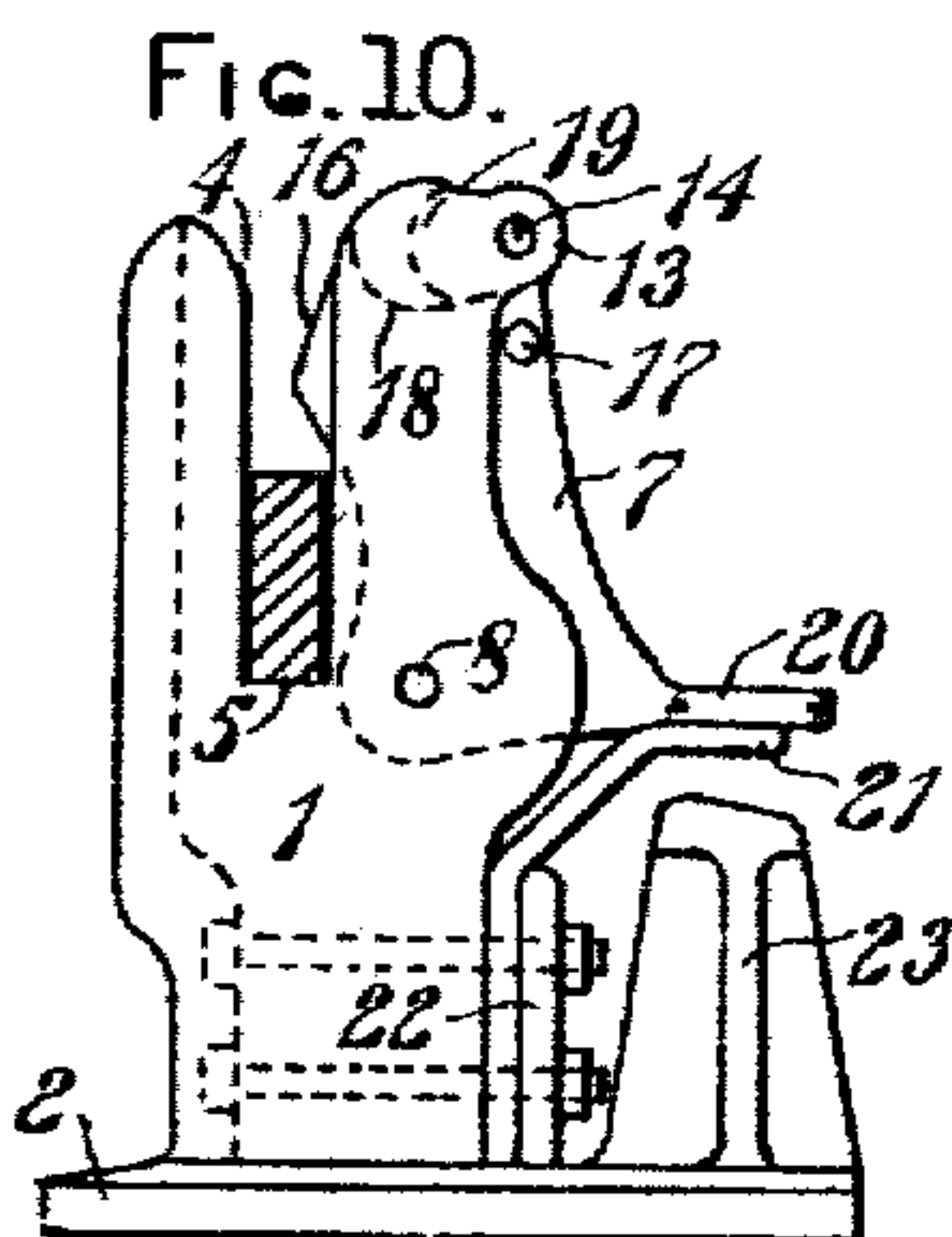
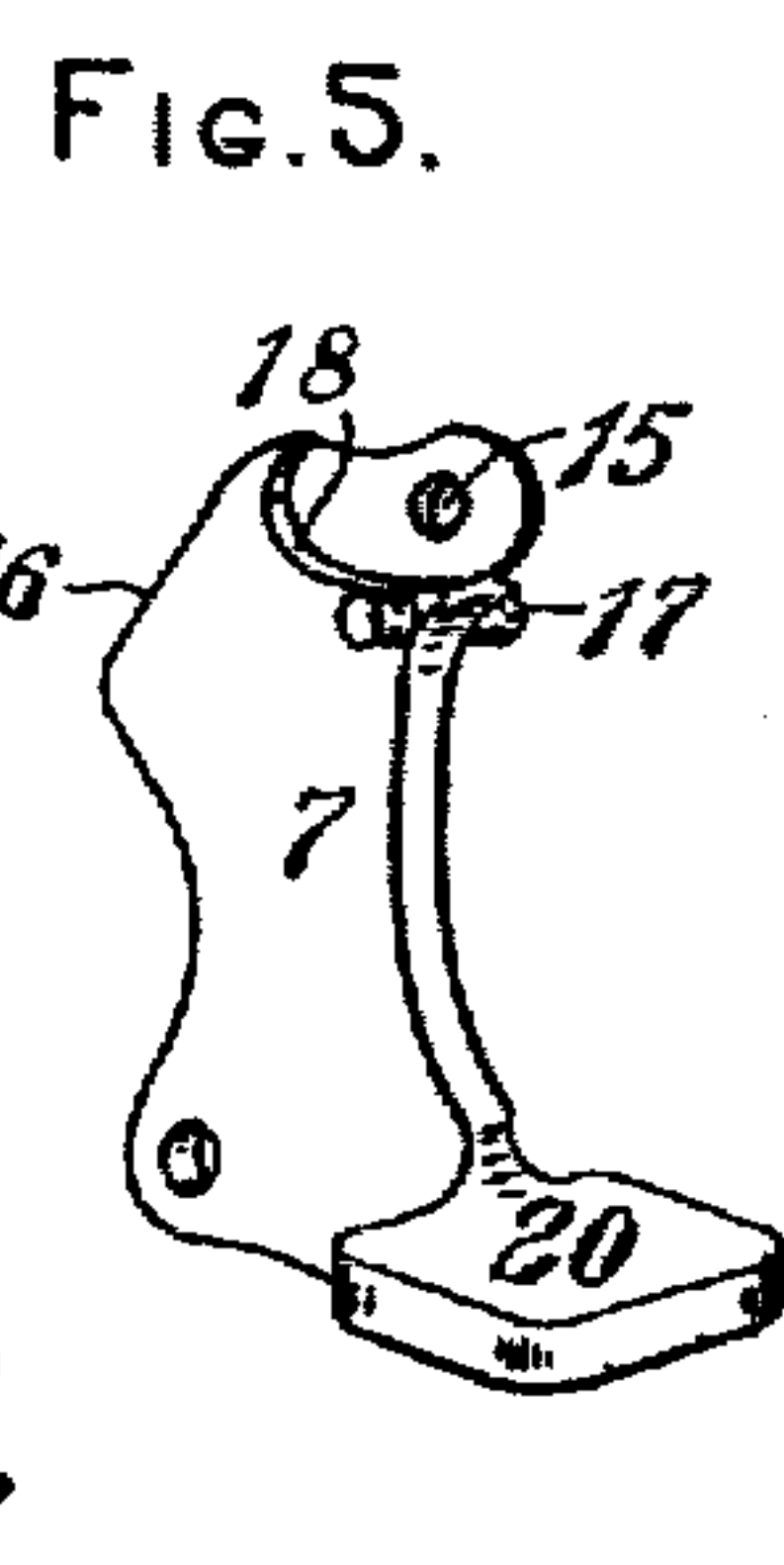
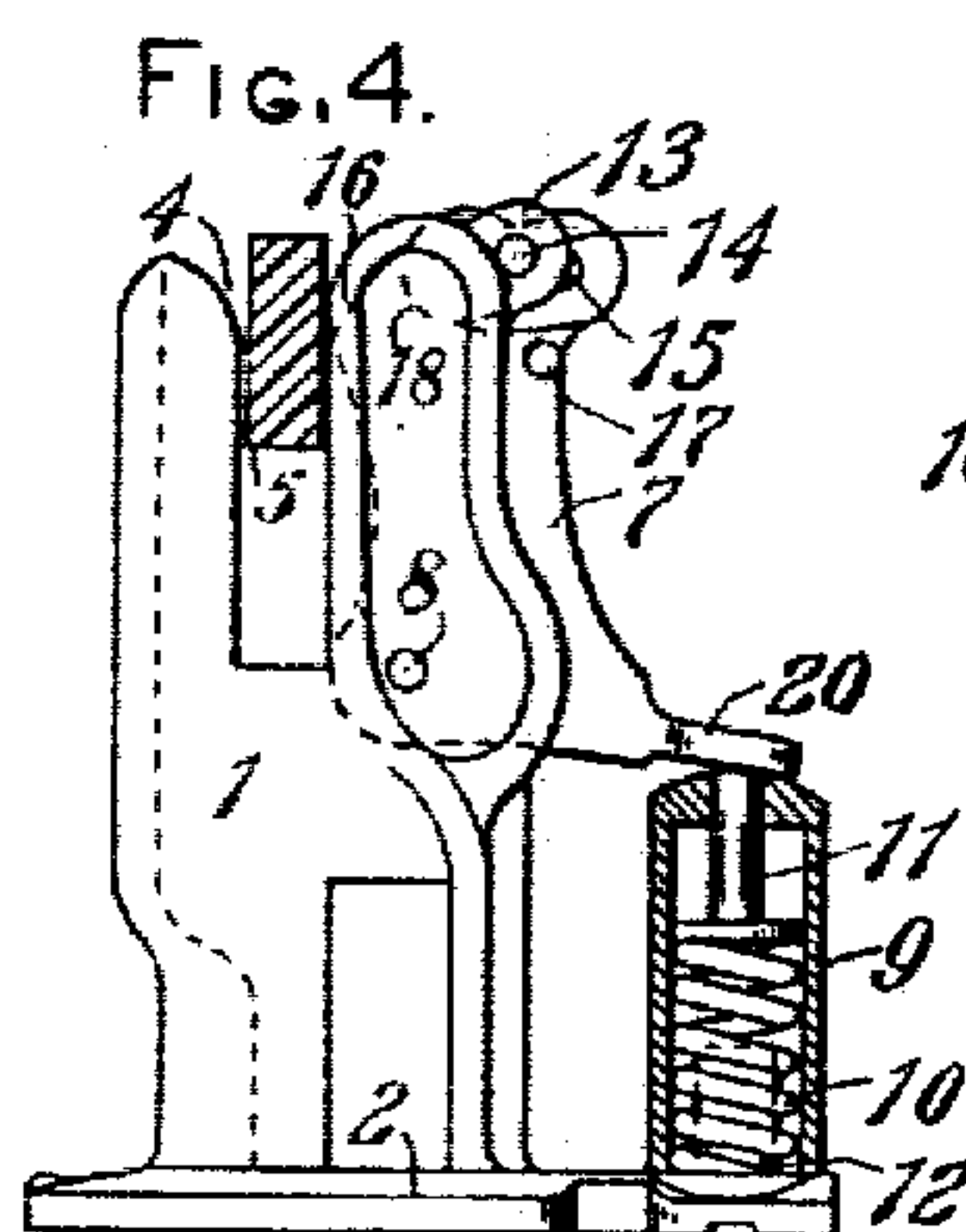
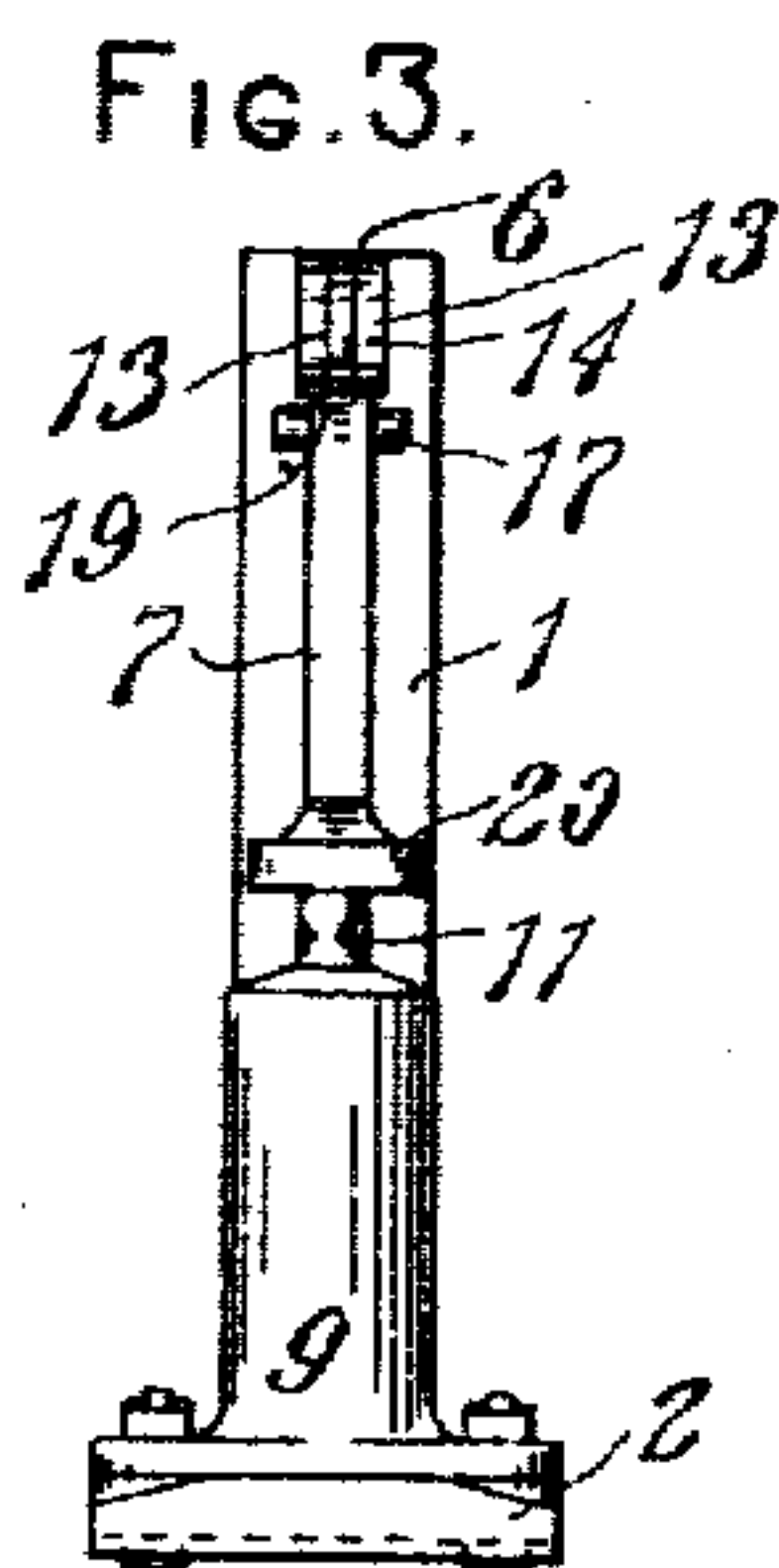
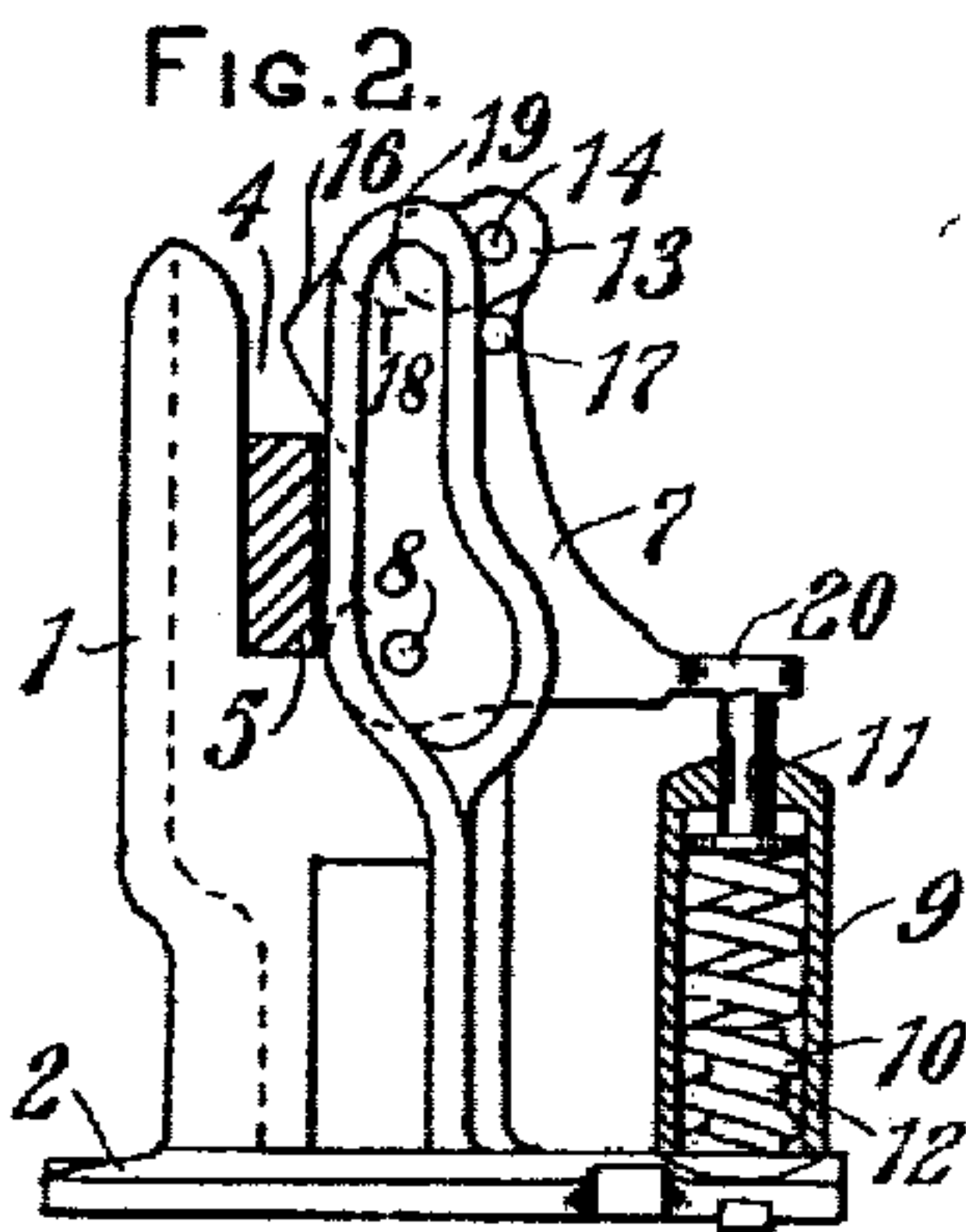
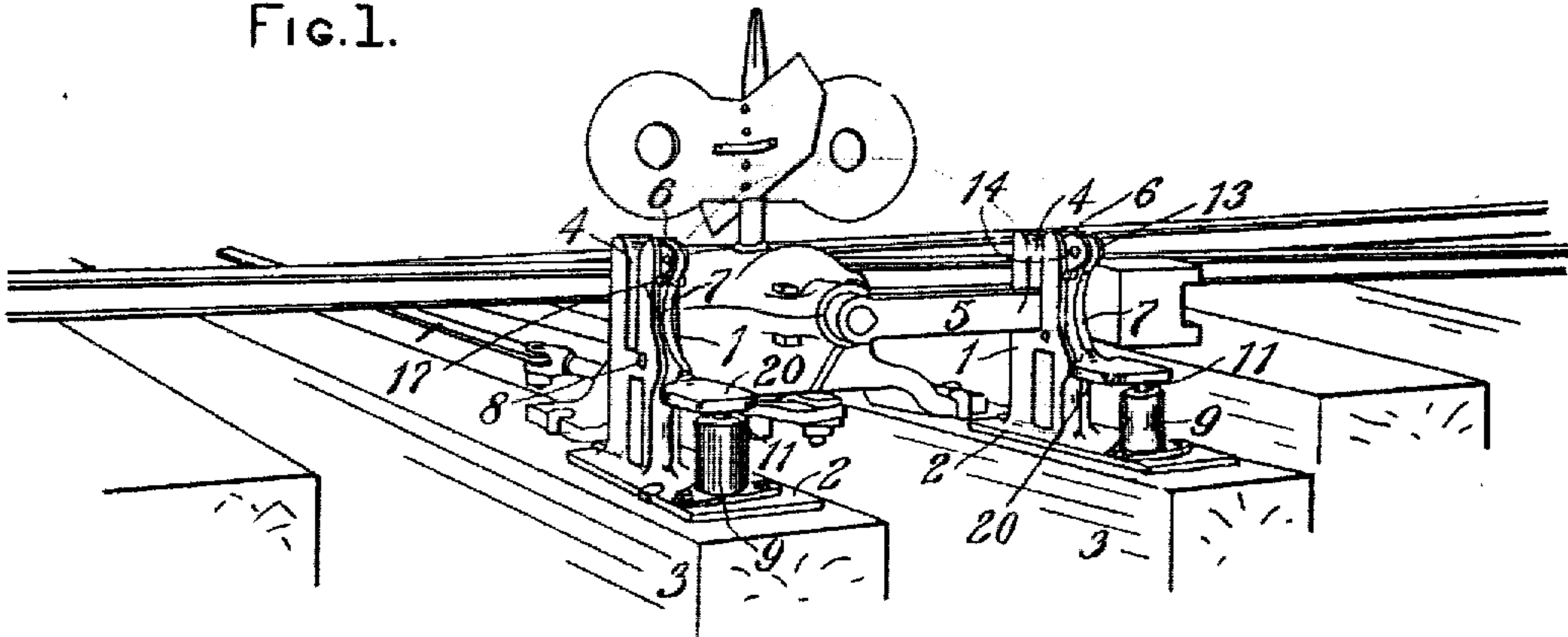


No. 815,136.

PATENTED MAR. 13, 1906.

F. C. ANDERSON.  
DOUBLE AUTOMATIC LATCH.  
APPLICATION FILED MAY 24, 1905.

FIG. 1.



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# UNITED STATES PATENT OFFICE.

FRANK C. ANDERSON, OF CINCINNATI, OHIO, ASSIGNOR OF ONE-HALF TO  
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## DOUBLE AUTOMATIC LATCH.

No. 815,136.

Specification of Letters Patent.

Patented March 13, 1906.

Application filed May 24, 1905. Serial No. 261,974.

*To all whom it may concern:*

Be it known that I, FRANK C. ANDERSON, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Double Automatic Latches, of which the following is a specification.

My invention relates to double automatic latches which are especially adapted to secure switch-operating levers.

The object of my invention is to secure the operating-lever of a switch against movement under traffic and to permit the switch-operating mechanism to operate automatically under force caused by the train running through the switch without any damage to the operating mechanism.

My invention consists in providing an ordinary stand with a latch pivoted thereto and adapted to be normally held by spring-pressure in the path of the operating-lever and to be forced out of said path by said lever in either direction, thus forming a double automatic latch.

My invention also consists in parts and in the combination and arrangement of parts as set forth and claimed herein.

In the drawings, Figure 1 is a perspective view showing my double automatic latch engaged with the operating-lever of a switch. Fig. 2 is a side elevation of my device, partly in section, showing the throwing-lever in section secured to the stand by my double automatic latch. Fig. 3 is a front elevation of the device. Fig. 4 is a view similar to Fig. 2, showing the lever in section and the latch forced out of its path thereby. Fig. 5 is a perspective view of the double automatic latch. Fig. 6 is a perspective view of the housing. Fig. 7 is a perspective view of the spring. Fig. 8 is a perspective view of the plunger. Fig. 9 is a perspective view of a spring used with a modified construction. Fig. 10 is a side elevation of a modification, showing the lever in section in position similar to that shown in Fig. 2.

My double automatic latch is preferably constructed substantially as follows: The latch comprises a stand 1, having a suitable base 2, whereby it is secured to the ties 3 and is provided with a slot 4, forming a yoke

adapted to receive and support the throwing-lever 5. It is also provided with a slot 6, adapted to receive the latch 7, which is pivoted therein at 8. The stand is provided with a housing 9 for the spring 10 and plunger 11. A stud 12 is preferably secured within the housing to retain the spring in proper position. The housing also forms a stop to limit the movement of the latch and spring. The yoke is provided with ears 13, having holes 14 adapted to register with a corresponding hole 15 in the latch when it is in its normal position, whereby the latch may be secured by a lock or otherwise held from acting automatically, and I prefer to reduce the metal sufficiently to permit a padlock to be used. The latch 7 is preferably constructed, as clearly shown in Fig. 5, with a double beveled edge 16, which normally projects into the slot 4, as shown in Fig. 2, having a stop 17 adapted to engage the outer edge of the yoke and limit the inward throw of the latch to form a gage for preventing it from projecting too far into the slot 4, and the latch 7 is also preferably cut away near the top to form shoulders 18, which are adapted to engage projections 19 on the walls of the slot 6 of the yoke to limit the outward throw of the latch. The latch 7 is also provided with an extension 20 to engage the plunger 11, which engages the spring 10 to hold said latch in its normal position and to automatically return it to such position after it has been moved out of its normal position. The extension also forms a bearing to throw the latch out of its normal position by foot-pressure instead of automatically, when desired.

It will be apparent that my invention is capable of some modification without departure from the scope and spirit thereof—as, for instance, I may also employ the construction illustrated in Figs. 9 and 10, which shows a flat spring 21, secured to the base and supported by reinforcement 22, said spring being adapted to engage the extension 13 of the latch and a guard 23, extending from the base 2 to limit the outward throw of the latch.

By securing the operating-lever automatically with my latch the switch is held positively rigid under traffic. By the use of my double automatic latch-switch stands that



are automatic when locked may be entirely dispensed with, thus giving a perfectly rigid operating-switch which will permit the operating mechanism to operate automatically when the switch is run through. Switch-operating mechanism which is not automatic when secured rigidly by a latch will not act automatically when the switch is run through, thus causing damage to the operating mechanism, whereas with my double automatic latch securing the operating-lever the switch when run through will act automatically without any damage to the operating mechanism. Automatic switch-operating mechanism may be entirely dispensed with by means of my double automatic latch, which permits the operating mechanism to be perfectly rigid and to be operated automatically when the switch is run through. Automatic switch-operating mechanism which has its throwing-lever rigidly secured may be dispensed with by the use of my double automatic latch which receives and releases the throwing-lever automatically when the switch is run through.

My invention provides means for securing the throwing-lever of switch-operating mechanism either automatically or rigidly, as desired, and if my double automatic latch should be destroyed by accident the switch would not become inoperative.

Switch-operating mechanism which will not act automatically when the throwing-lever is secured will act automatically if the throwing-lever is secured with my double automatic latch.

My double automatic latch prevents the point-rail from being locked or secured open caused by an obstruction between it and the stock-rail because the resistance of the point-rail against said object would cause the lever to be instantly released from the latch, and thus notify the trainman to remove same and secure the point-rail in proper position.

I claim—

1. In a double automatic latch, a stand adapted to engage a throwing-lever, and means for automatically receiving and releasing said lever.

2. In a double automatic latch, a stand having a yoke adapted to engage a throwing-lever, and a latch adapted to automatically receive and release said lever.

3. In a double automatic latch, a stand having a yoke adapted to engage a throwing-lever, a latch pivoted to said stand, and a spring adapted to normally hold said latch in the path of said lever to secure the lever in said yoke and allow it to be forced out of the path of said lever moving in either direction.

4. In a double automatic latch, a stand adapted to engage a lever, a latch for automatically receiving and releasing said lever and a stop on said latch adapted to engage

said stand to limit the inward throw of the latch.

5. In a double automatic latch, a stand adapted to engage a lever, a latch for automatically receiving and releasing said lever and a stop on said latch adapted to engage said stand to limit the outward throw of the latch.

6. In a double automatic latch, a stand adapted to engage a lever, a spring-actuated latch, and means to limit the movement of the spring.

7. In a double automatic latch, a stand adapted to engage a lever and a latch pivoted thereto having a double-beveled edge; and means for normally holding said latch in the path of the throwing-lever.

8. In a double automatic latch, a stand having a yoke provided with a hole therein, a latch secured to the stand and having a hole adapted to register with the hole in the yoke to form means whereby said latch may be locked in closed position, and means for normally holding said latch in closed position independently of a lock.

9. In a double automatic latch, a stand having a yoke provided with a hole in one wall thereof, a latch having a hole with the adjacent wall thereof cut away and adapted to register with the hole in the stand to form means whereby said latch may be locked in closed position, and means for normally holding said latch in closed position independently of a lock.

10. In a double automatic latch, a stand having a yoke adapted to engage a lever, a latch secured to said stand, a housing secured to said stand, a spring in said housing, a plunger adapted to engage the said spring, and said latch.

11. In a double automatic latch, a stand having a yoke adapted to engage a lever, a latch secured to said stand and provided with an extension to open the latch by foot-pressure.

12. In a double automatic latch, a stand having a yoke adapted to engage a lever, a latch secured to said stand and provided with an extension to open the latch by foot-pressure, and means adapted to engage said extension to return the latch to its normal position in the path of the throwing-lever.

13. In a double automatic latch, a stand having a yoke adapted to engage a lever, a latch pivoted to said stand, a housing secured to said stand, a spring within said housing, a stud within said housing to hold the spring in position, and a plunger adapted to engage said spring and latch.

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