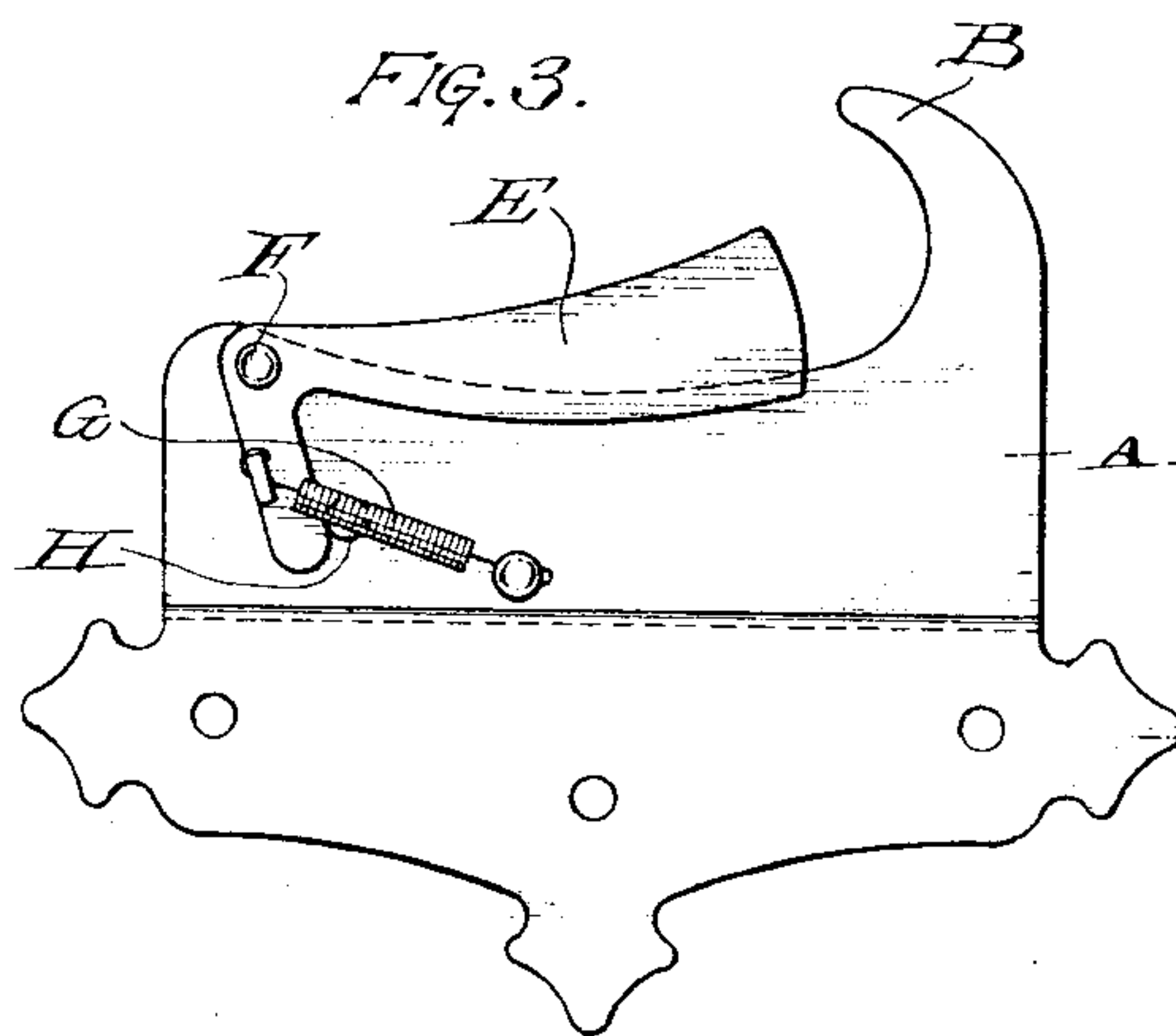
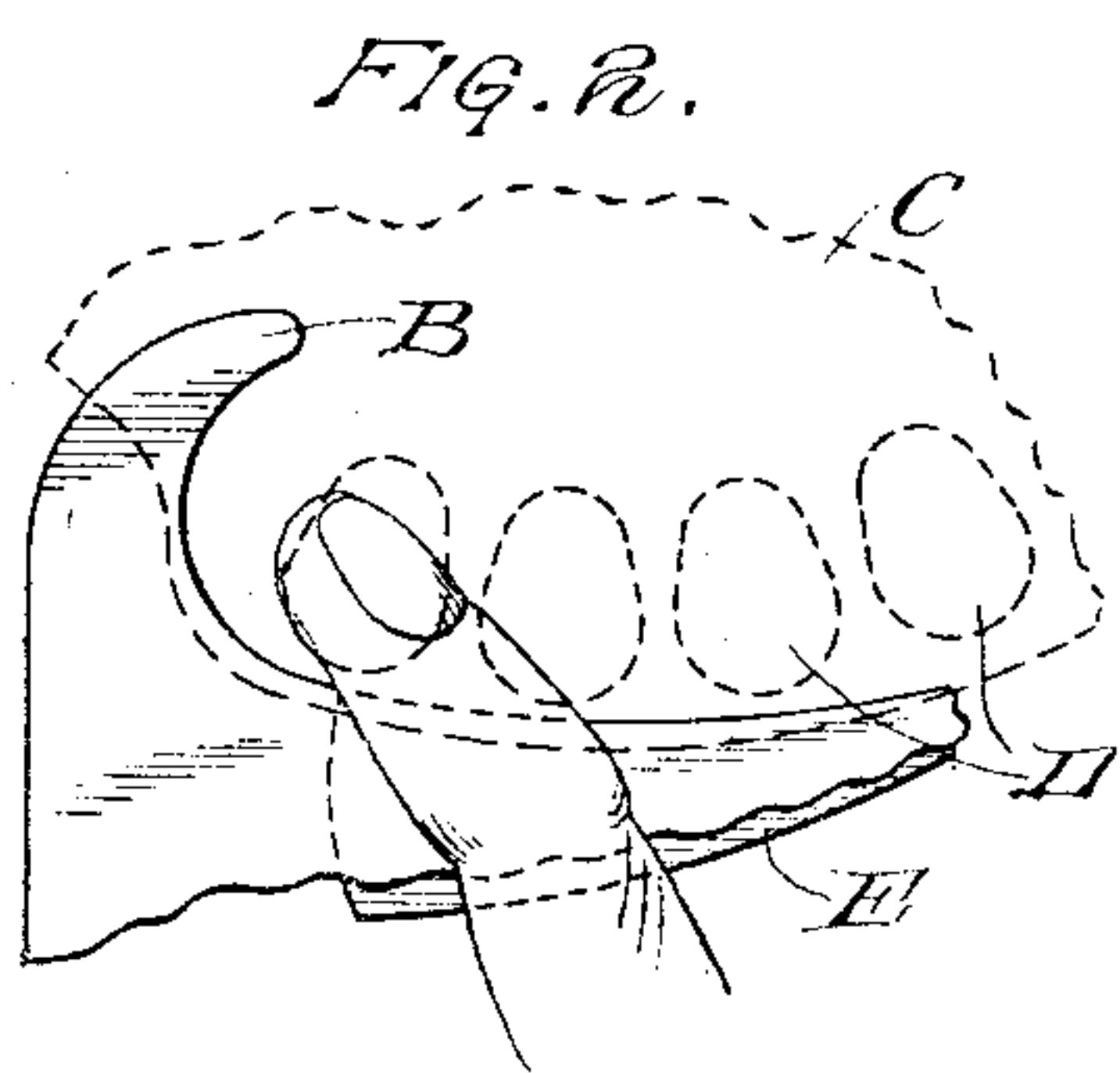
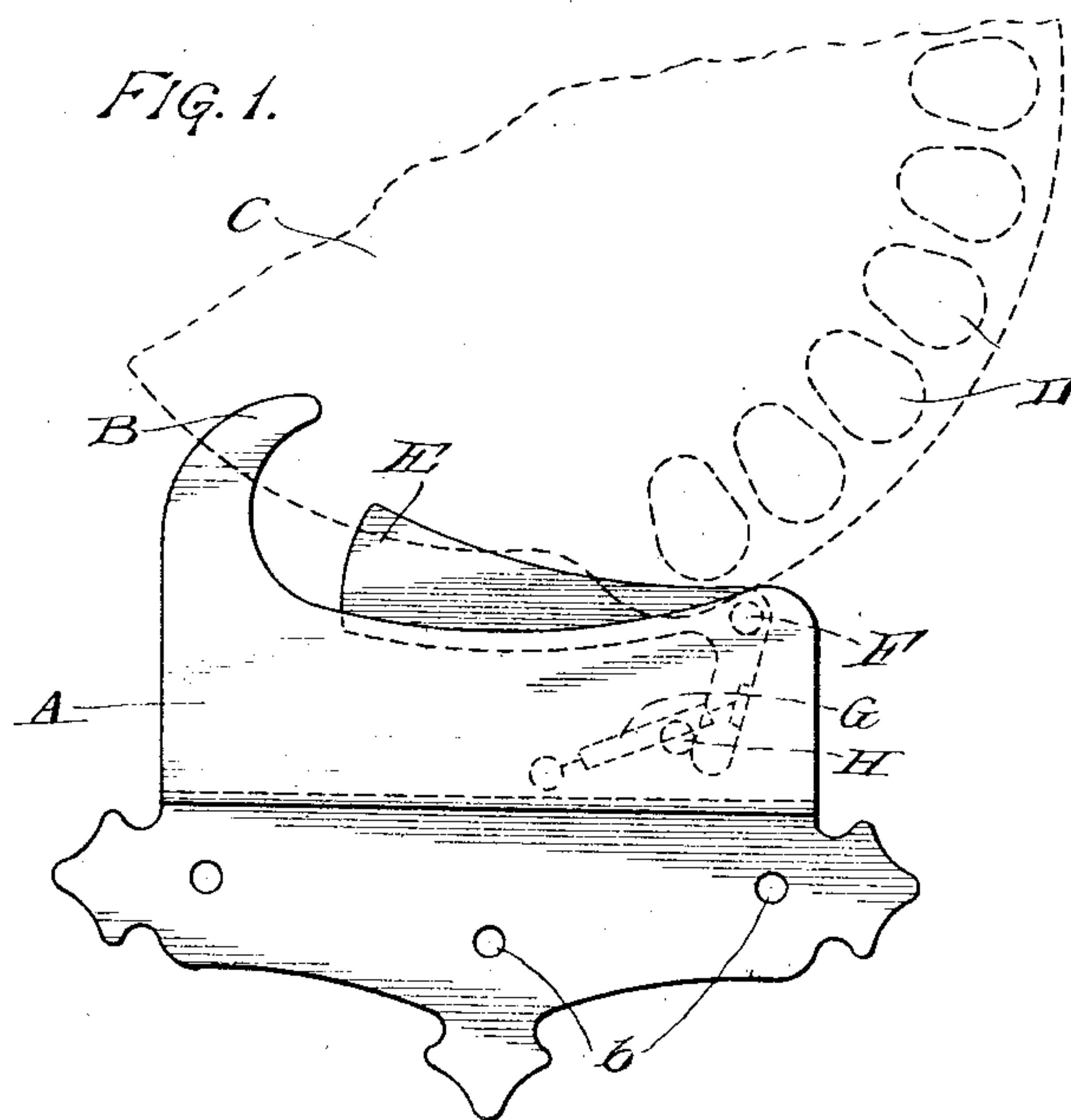


E. A. MELLINGER.
ATTACHMENT FOR CALLING DEVICES.
APPLICATION FILED MAY 9, 1913.

1,181,679.

Patented May 2, 1916.



Witnesses.
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UNITED STATES PATENT OFFICE.

EDWARD A. MELLINGER, OF CHICAGO, ILLINOIS, ASSIGNOR TO AUTOMATIC ELECTRIC COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

ATTACHMENT FOR CALLING DEVICES.

1,181,679.

Specification of Letters Patent.

Patented May 2, 1916.

Application filed May 9, 1913. Serial No. 766,560.

To all whom it may concern:

Be it known that I, EDWARD A. MELLINGER, a citizen of the United States of America, and resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Attachments for Calling Devices, of which the following is a specification.

My invention relates to improvements in calling devices, and particularly to the feature of providing means whereby a subscriber is prevented from hastening the normal operation of the device. These calling devices, when employed in connection with automatic telephone systems, operate to transmit a series of impulses over a telephone line to operate an automatic switch at the far end of the line. In order to insure the best and most efficient operation of this switch it is necessary that these impulses be transmitted at a given speed, and the calling device is so adjusted as to transmit the impulses at this speed. In operating these calling devices it has been found that oftentimes the subscriber will attempt to hasten the operation of the calling device and in this way affects the proper operation of the switch at the other end of the line.

The object of my invention is to provide a device in which the subscriber is deterred from hastening the operation by the provision of means which partially prevents him from so doing.

My invention is particularly adapted for use in connection with calling devices which consist of a rotary dial provided with finger holds and a finger stop, the device being operated by inserting the finger in the proper finger hold and rotating the dial until the finger strikes the stop and then releasing the dial, which then returns to normal position and during this return movement transmits the impulses over the telephone line. A calling dial of such type is well known and is illustrated in the patent to John Erickson, No. 1,023,200, granted April 16, 1912.

In the accompanying drawings I have illustrated my improved attachment in connection with such a calling device.

Figure 1 represents a front view of the mechanism. Fig. 2 is a portion of Fig. 1, showing the dial in operation. Fig. 3 is a back view of Fig. 1.

In Fig. 1 I have indicated at C in dotted

lines a portion of the ordinary calling dial provided with the finger holds D. Attached to the calling device in any suitable manner, such as by means of three screws inserted through the holes b, there is a metal plate A provided with a curved portion B providing what is known as a finger stop. This finger stop is fastened immediately below the dial C. Thus when a subscriber wishes to call a certain number he inserts his finger in the holds representing the digits required and pulls the dial C down toward the finger stop A. Upon the dial being released it immediately commences to revolve back to its normal position, and in so doing sends impulses over the line. A subscriber is often tempted to leave his finger in the finger hold during this return movement and attempt to hasten the same. In order to prevent this I provide a lever E which is pivotally attached to the finger stop A by means of a pin F. Fastened to the short arm of the lever E is a spiral spring G which acts to keep the lever normally in an upturned position. The stop H is provided to prevent the spring tilting the lever too far. As the subscriber's finger approaches the stop A when the dial is rotated, the lever E is depressed by the finger against the opposition of the spring G, as shown in Fig. 2. Just before the finger reaches the stop, however, it passes beyond the end of the lever E and thus allows the spring to return this lever to normal position behind the finger. This lever E, therefore, in this position, prevents the subscriber from moving his finger backward after it reaches the stop, but the finger must be removed from the hold before the dial is permitted to rotate back to its normal position. This mechanism thus prevents the subscriber from retaining his finger in the finger hold and moving it backward with its return movement of the dial. Therefore, since the subscriber is forced to remove his finger from the dial before it can return, the dial will not be hindered in its return movement, but will return at its natural speed, as it is very improbable that a subscriber would attempt to hasten this movement by inserting his finger in a different finger hold after he has withdrawn his finger from the one by which he originally operated the dial. It will thus be seen that I have devised a very simple attach-

ment for calling devices which, while it does not absolutely prevent the forcing or hastening of the dial, acts in such a manner as to practically eliminate all such objections in practice.

While I have illustrated and described one particular embodiment of my invention, it will be understood that I do not wish to be limited to the exact construction shown and described, as various modifications will suggest themselves to those skilled in the art, all of which come within the broader scope of my invention.

What I claim as my invention is:

15 1. In a calling device, a rotary dial provided with finger holds, a finger stop for limiting the movement of said dial, and a pivoted lever adjacent to said stop for necessitating the removal of the finger from the
20 finger hold before said dial can rotate in the opposite direction.

2. In a calling device, a rotary dial provided with finger holds, an attachment adjacent to said dial carrying a finger stop,
25 a pivoted lever, and a spring normally hold-

ing the end of said lever in the path of travel of the finger in said finger holds in operating said dial, said lever being so limited that the finger passes the end of the same just before the finger stop is reached. 30

3. In a calling device, a rotary dial provided with finger holds whereby a subscriber is enabled to rotate said dial in one direction by inserting a finger into one of said holds, an attachment adjacent to said dial, said attachment carrying a finger stop for limiting the movement of said finger, a pivoted lever mounted in said attachment, and a spring for normally holding said lever in the path of said finger, said lever being
40 so positioned that the finger passes the end of the same just before said finger stop is reached.

Signed by me at London, England this
22nd day of April 1913.

EDWARD A. MELLINGER.

Witnesses:

WALTER H. DERRIMAN,
ALBERT JONES.