

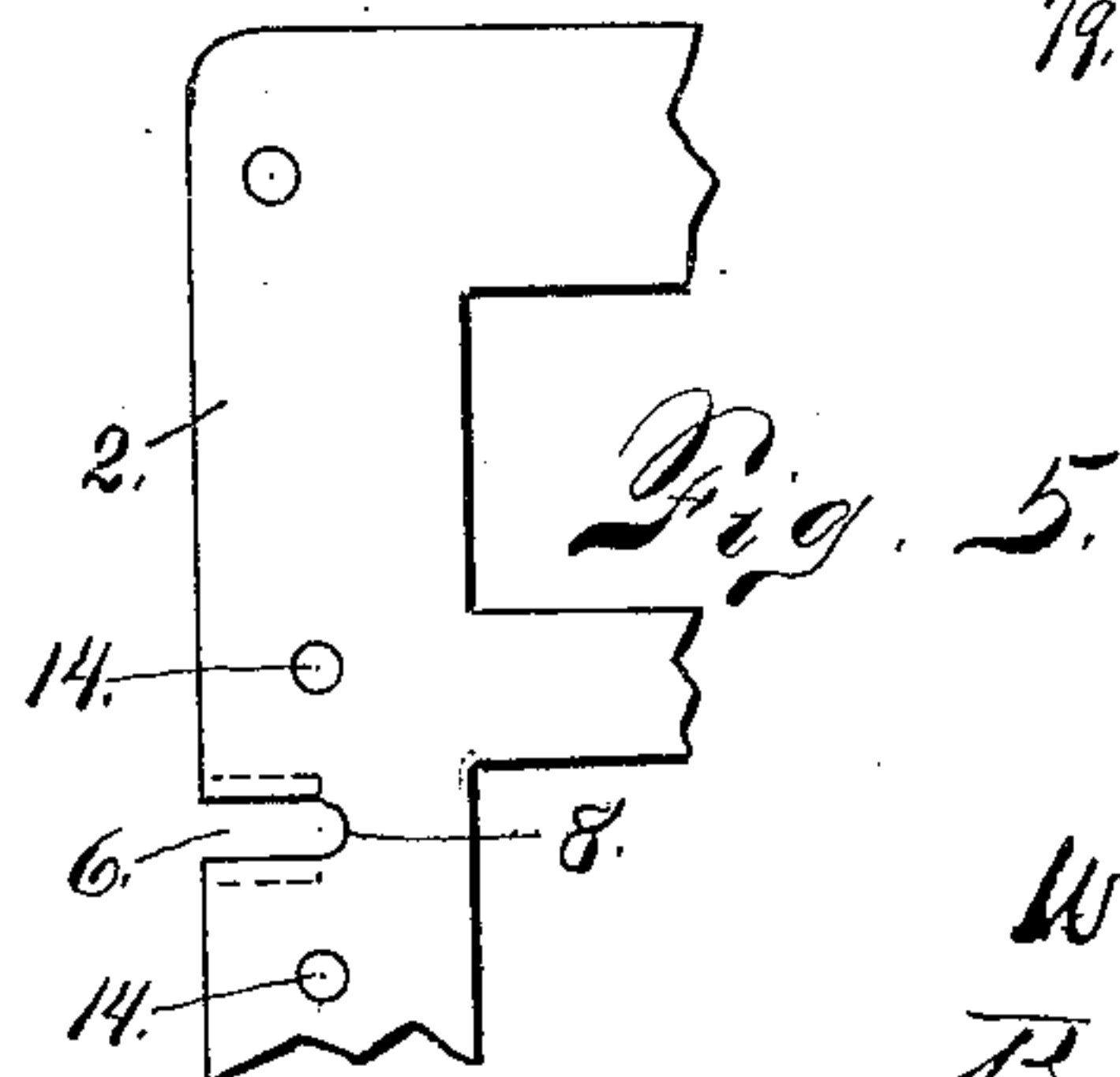
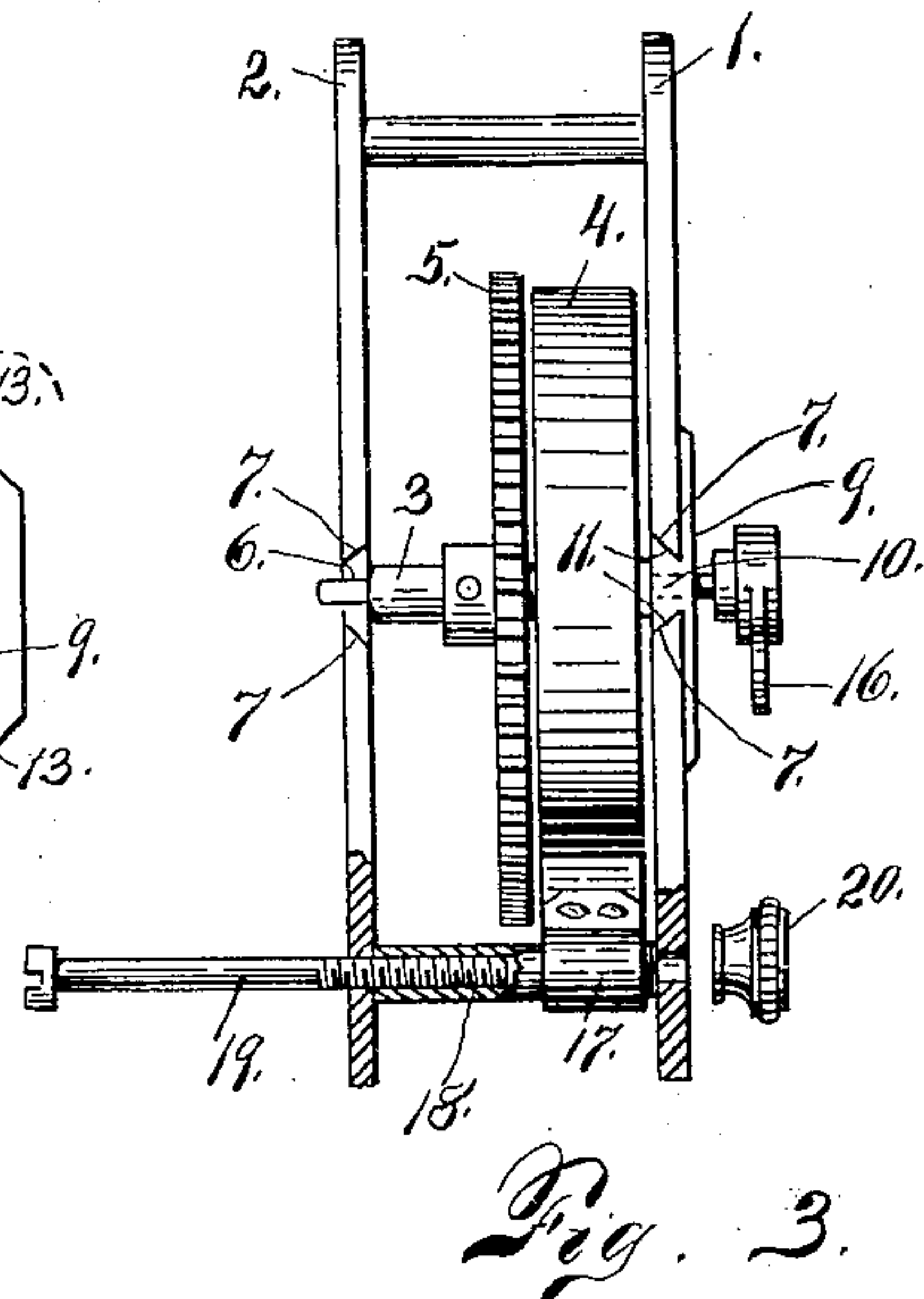
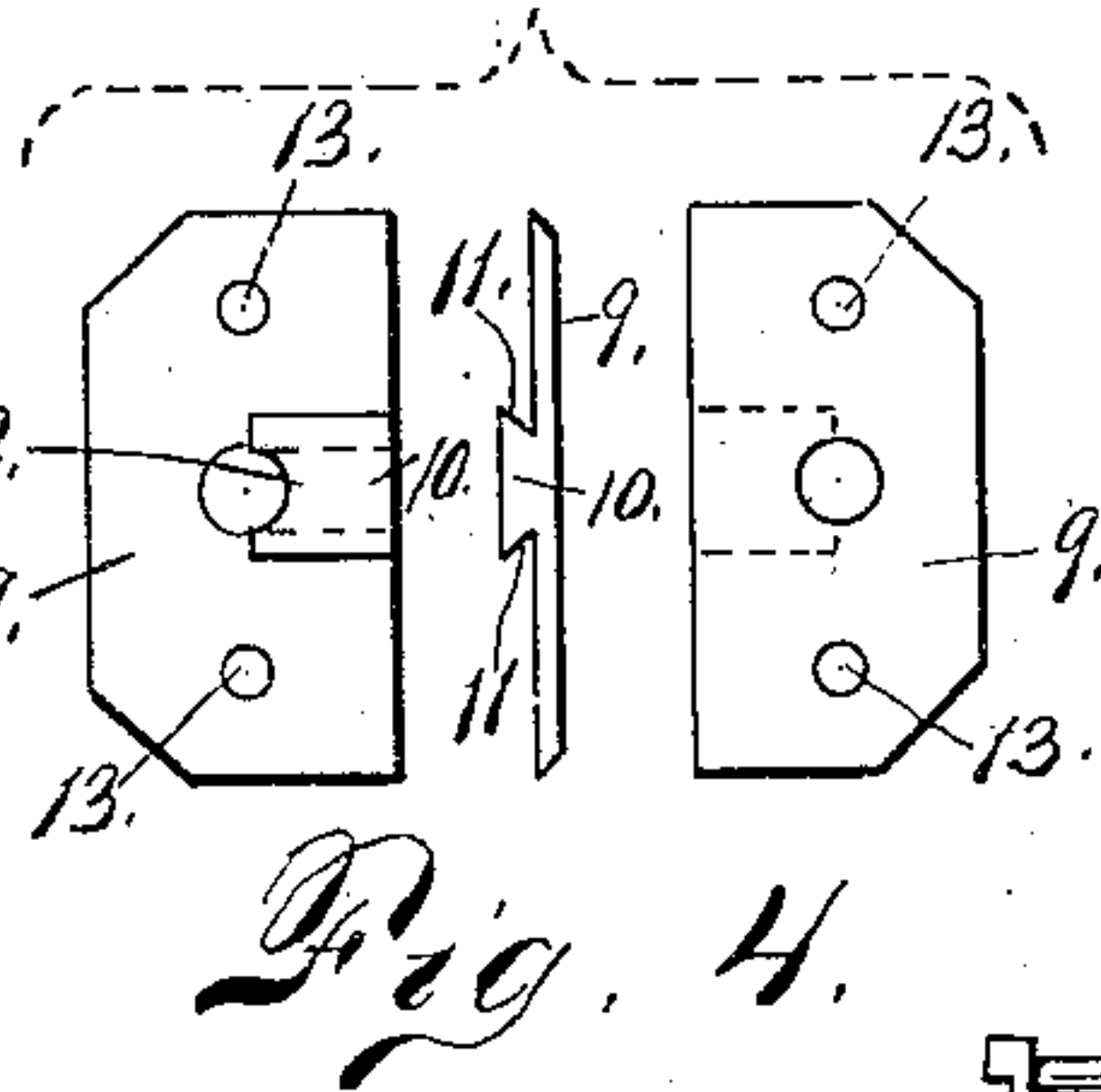
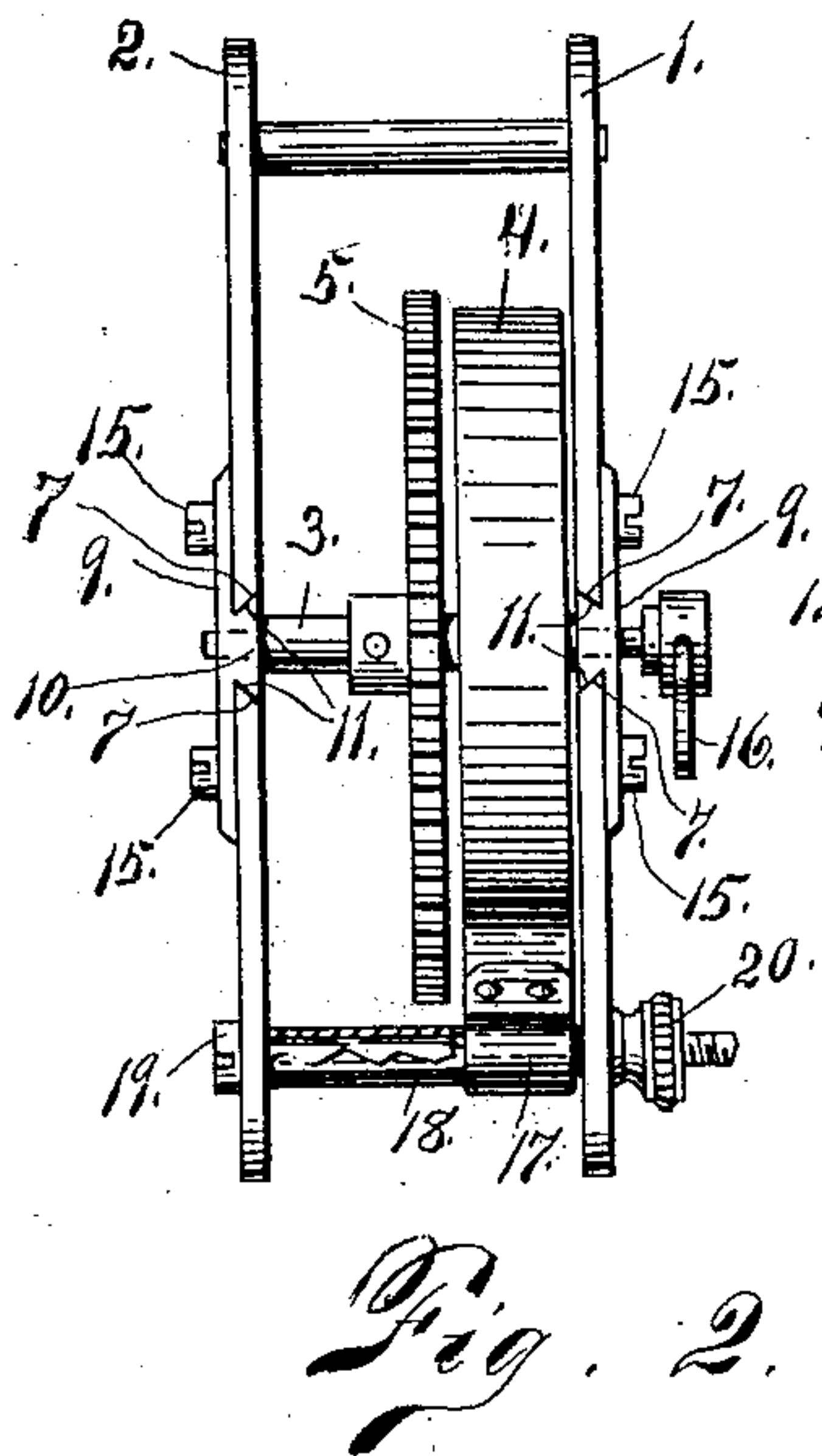
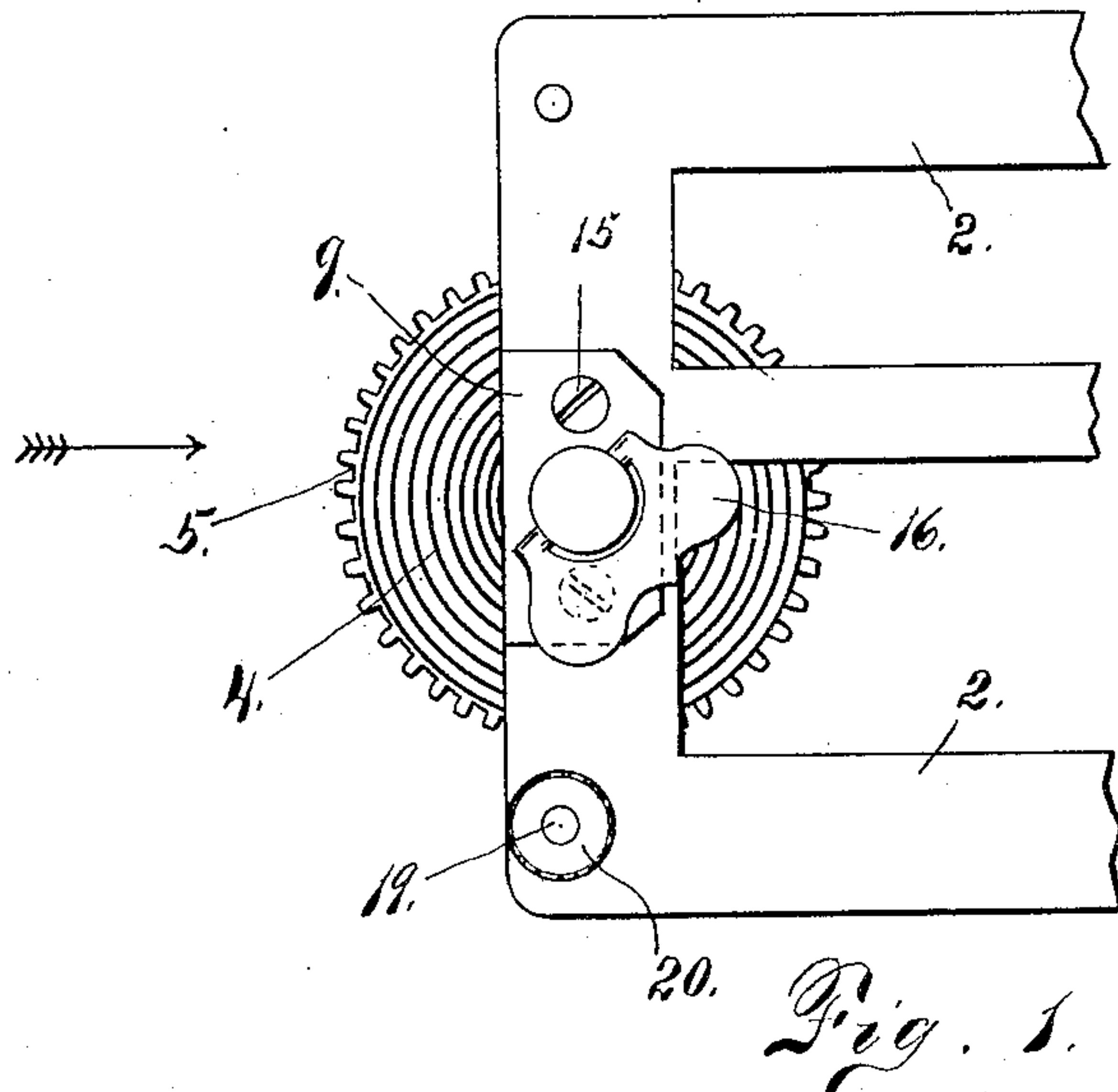
No. 703,354.

Patented June 24, 1902.

W. H. STEVENS.
CLOCK FRAME.

(Application filed May 18, 1901.)

(No Model.)



Witnesses:
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UNITED STATES PATENT OFFICE.

WILLIAM H. STEVENS, OF BUFFALO, NEW YORK, ASSIGNOR OF ONE-THIRD
TO JOHN MILTON GARRATT, OF BUFFALO, NEW YORK.

CLOCK-FRAME.

SPECIFICATION forming part of Letters Patent No. 703,354, dated June 24, 1902.

Application filed May 16, 1901. Serial No. 60,557. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. STEVENS, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Clock-Movement Frames; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to figures of reference marked thereon, which form a part of this specification.

The object of my invention is to so construct the clock-mechanism frame that the arbor carrying the mainspring and the main gear-wheel can be quickly and easily removed without disturbing either the frame or any of the other operative parts, at the same time providing such arbor with firm and reliable sockets or bearings in the frame.

To these ends my invention consists of specially-prepared socket-plates adapted for removable engagement with specially-prepared frame-plates, each socket for the mainspring-arbor being one-half in the socket-plate and one-half in the frame-plate, the plates being constructed and combined substantially as hereinafter described, and pointed out in the claims.

In the drawings, Figure 1 is a fragmentary side elevation of a clock-movement frame embodying my invention. Fig. 2 is an end elevation of the same. Fig. 3 is a similar view with portions removed. Fig. 4 is a group of figures representing an inside, end, and outside view, respectively, of my improved socket-plate; and Fig. 5 is a fragmentary side view of one of the side plates of the clock-movement frame.

Referring to the drawings, 1 and 2 are the side plates of the frame, secured together in the usual manner and between which are held the operative parts of the clock mechanism.

3 is the arbor, on which are mounted the mainspring 4 and the large gear-wheel 5, connecting with and operating the clock mechanism. (Not shown.) Each side plate 1 and 2 is provided with the notch or opening 6,

(see Fig. 5,) having beveled sides 7 7, (see Figs. 2 and 3,) the inner end 8 of the notch being semicircular to form a half-socket for the arbor 3.

9 is the socket-plate, having centrally arranged on one side of its inner face the rib 10, having the beveled sides 11 11, adapted for sliding engagement with the beveled sides 7 7 of the notch or opening 6 in the plates 1 and 2. At the inner end of the beveled rib 10 is the semicircular groove 12, forming a half-socket for the arbor 3.

The socket-plates 9 have the screw-holes 13, which register with the screw-holes 14 in the plates 1 and 2, the socket-plates being secured thereto by the screws 15. 16 is the key, removably secured to the projecting end of the arbor for winding up the mainspring.

The outer end 17 of the mainspring 4 is secured around a collar 18, adapted for the removable reception of the bolt 19, which passes loosely through both the plates 1 and 2 and the collar 18 and is held from accidental disengagement by the thumb-nut 20.

The ends of the arbor 3 rest between the semicircular sockets 8 8 in the frame-plates 1 and 2 and semicircular sockets 12 12 in the ribs 10 of the removable plates 9. The ribs 10 are of the same thickness as the frame-plates 1 and 2, with which they have beveled sliding engagement, and therefore the registering semicircular sockets 8 8 and 12 12 form even and reliable bearings for the arbor 3. The beveling is an important feature, as in the event of the fastening-screws becoming accidentally loosened the socket-plates will still retain their positions relative to the frame-plates.

The operation of removing the mainspring is simple, as after unscrewing the socket-plates 9 they can be slid off from the frame-plates 1 and 2, which leaves the arbor 3 free to be withdrawn and with it the mainspring 4. The outer end 17 of the mainspring is released by removing the thumb-nut 20 and pulling the bolt 19 out of the collar 18, around which the outer end of the mainspring is loosely secured. This last action entirely releases the mainspring from the clock mechanism without disturbing the frame-plates or

any of the other operative parts of the clock mechanism.

I claim—

1. In a clock mechanism, the combination
5 with the frame-plates, each provided with an
elongated notch having beveled sides and
semicircular inner ends, of socket-plates each
having inwardly-directed ribs provided with
10 ribs of the socket-plates being adapted to
slide within the elongated notches of the
frame-plates whereby the semicircular ends
of the latter may coact with the semicircular
grooves of the former to form bearings for the
15 mainspring-arbor.

2. In a clock mechanism, the combination
with the frame-plates, each provided with an
elongated notch having beveled sides and

semicircular inner ends, of socket-plates each
having inwardly-directed ribs provided with 20
beveled sides and semicircular grooves, the
ribs of the socket-plates being of the same
thickness as the thickness of the frame-plates
and adapted to slide within the elongated
notches of the frame-plates whereby the semi- 25
circular ends of the latter may coact with the
semicircular grooves of the former to form
bearings for the mainspring-arbor.

In testimony whereof I have signed my
name to this specification in the presence of 30
two subscribing witnesses.

WILLIAM H. STEVENS.

Witnesses:

W. T. MILLER,

WM. F. PFAFF.