

No. 641,296.

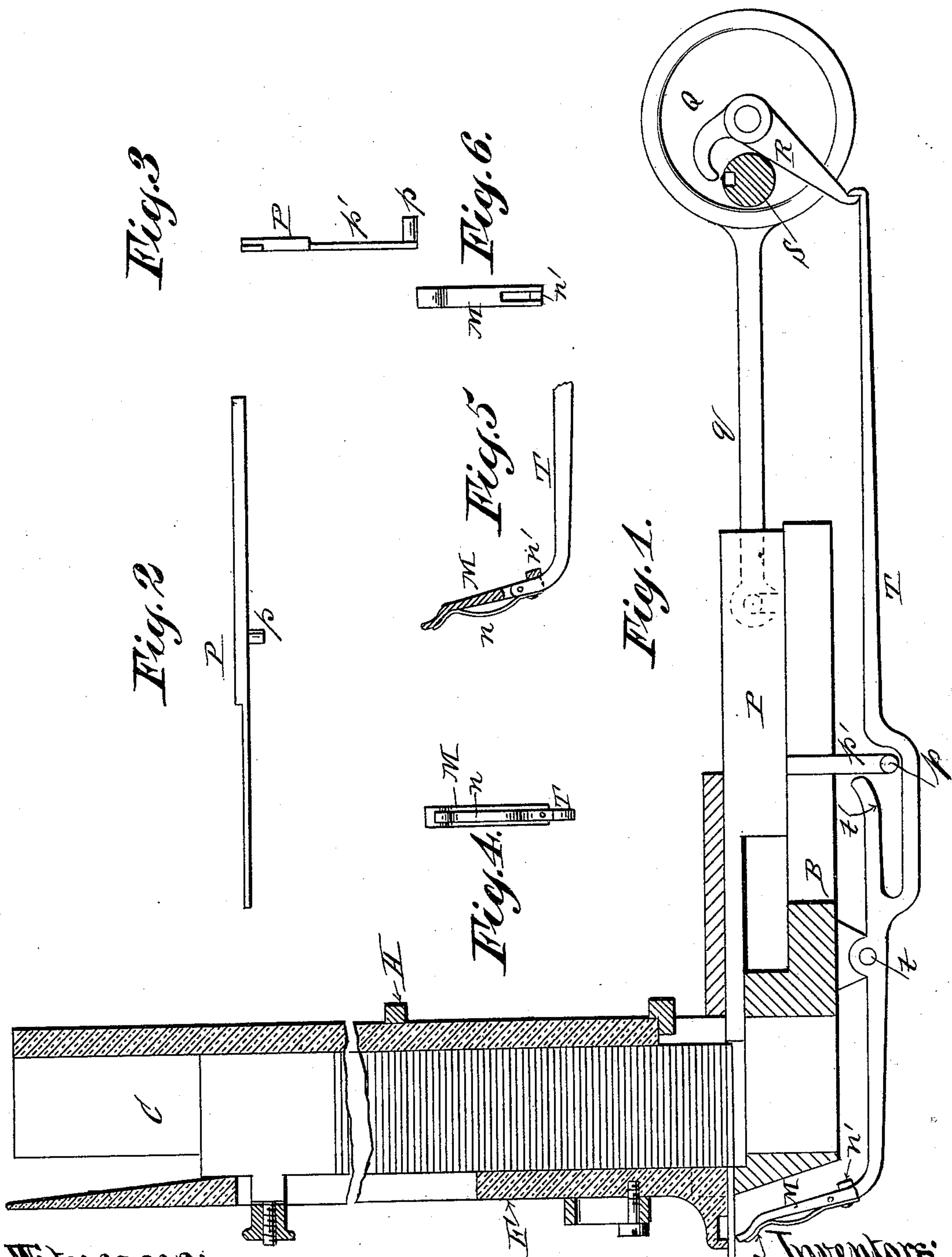
Patented Jan. 16, 1900.

L. K. JOHNSON & A. A. LOW.
TYPE SETTING APPARATUS.

(Application filed Oct. 22, 1896.)

(No Model.)

4 Sheets—Sheet 1.



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Louis W. Rowley.

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Fig. 10.

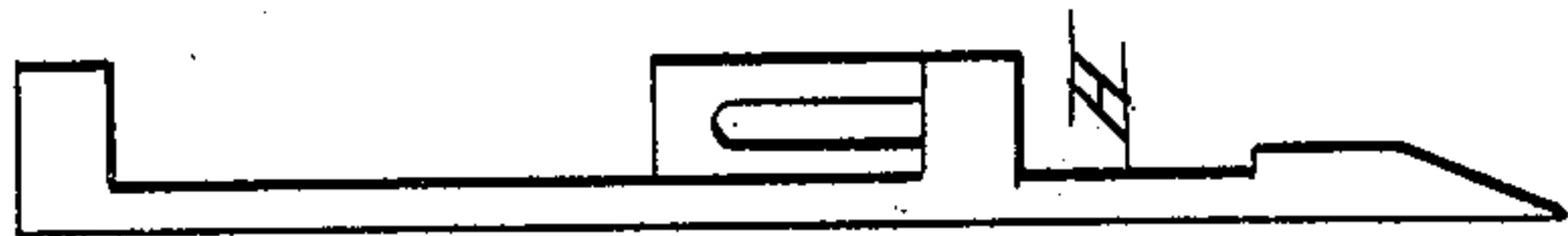


Fig. 9.

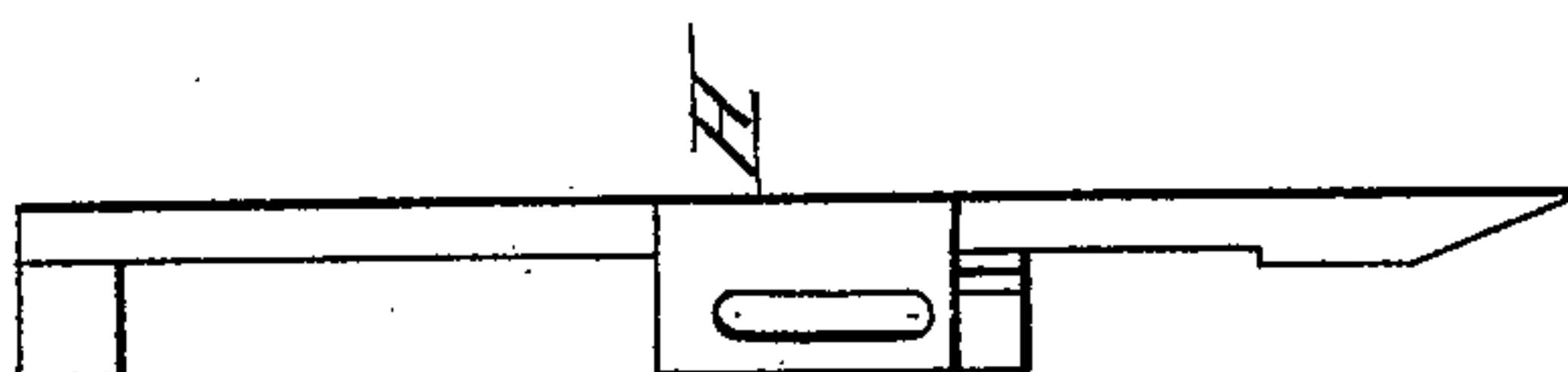


Fig. 8.

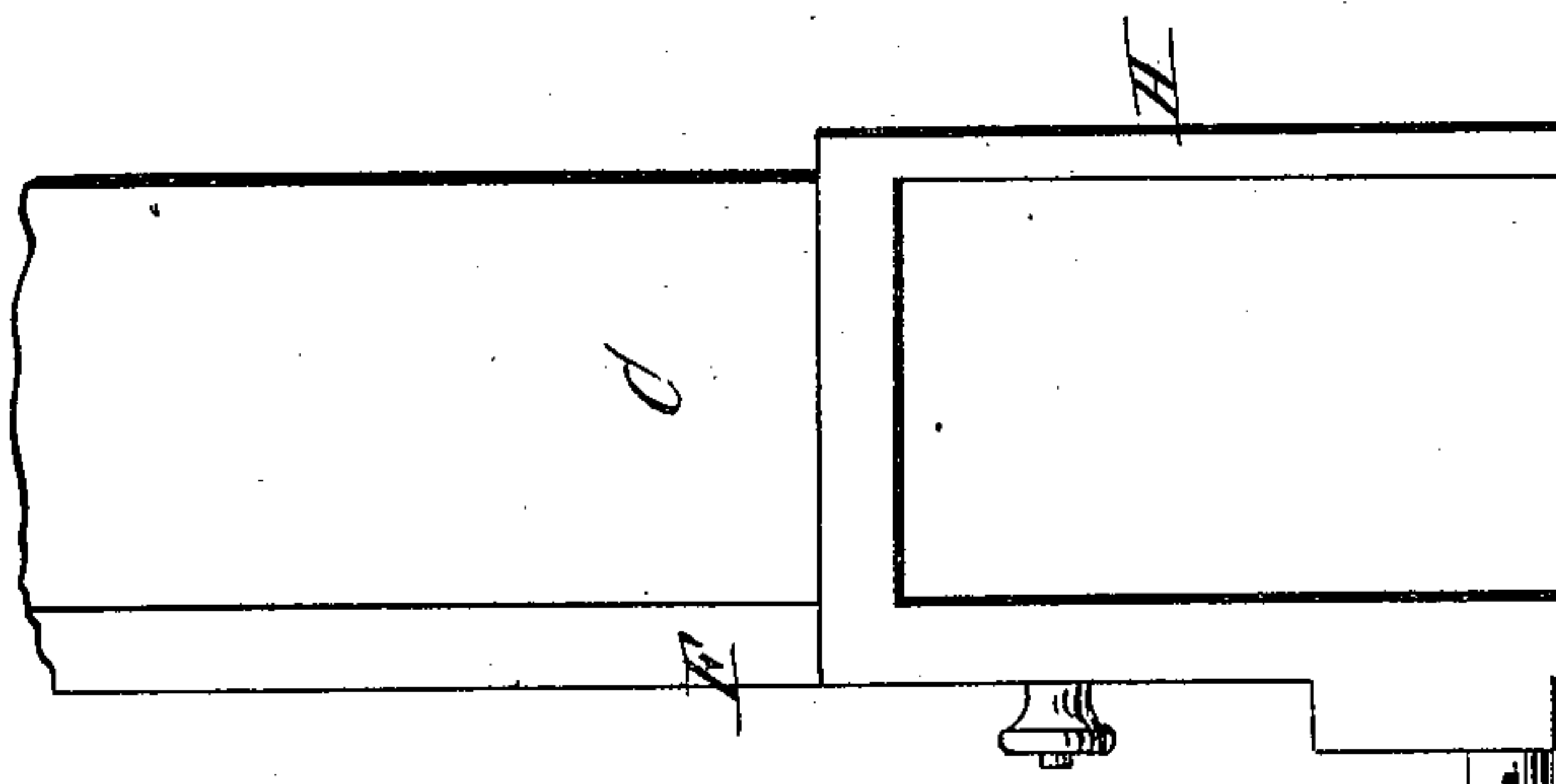
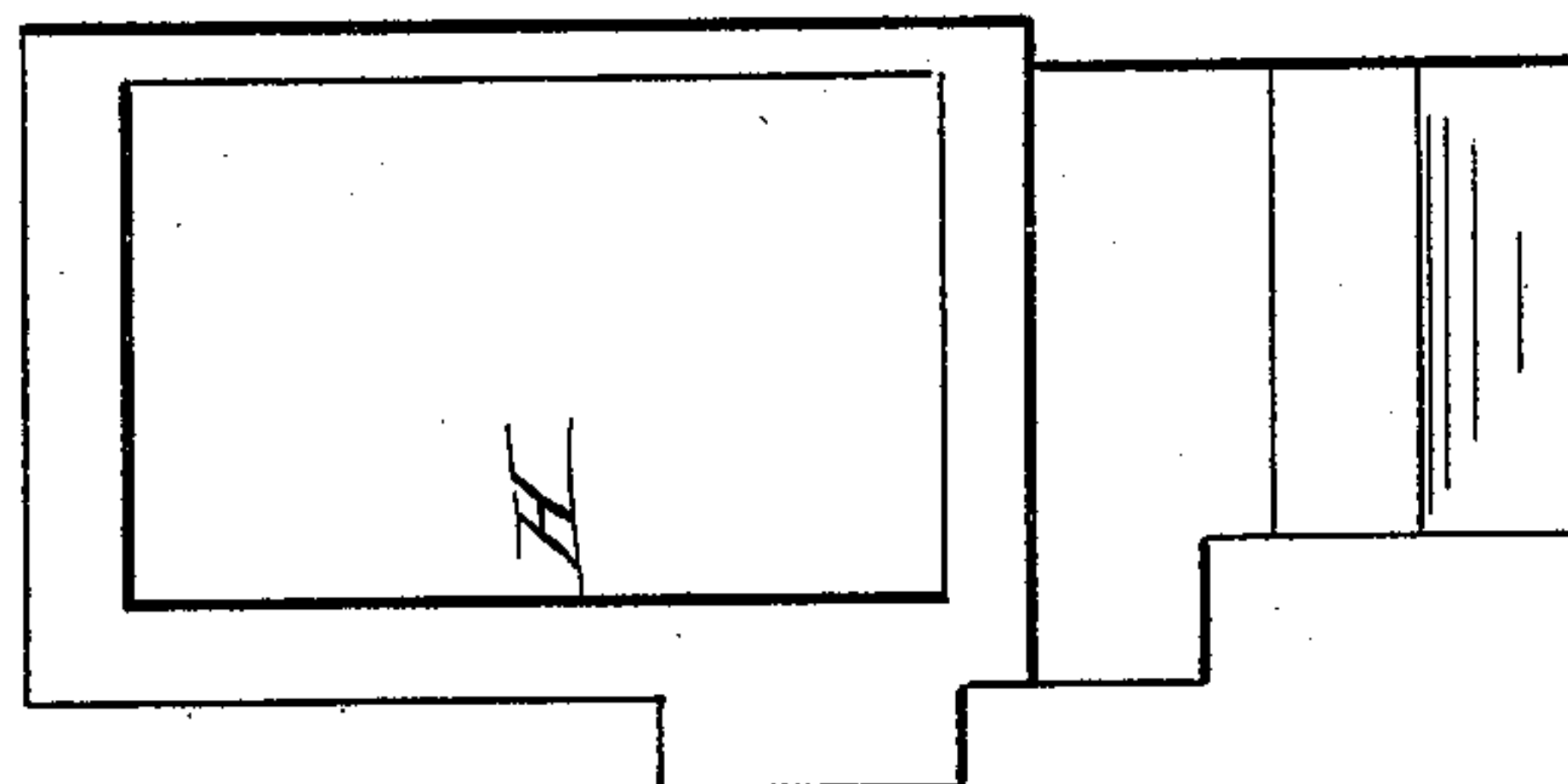
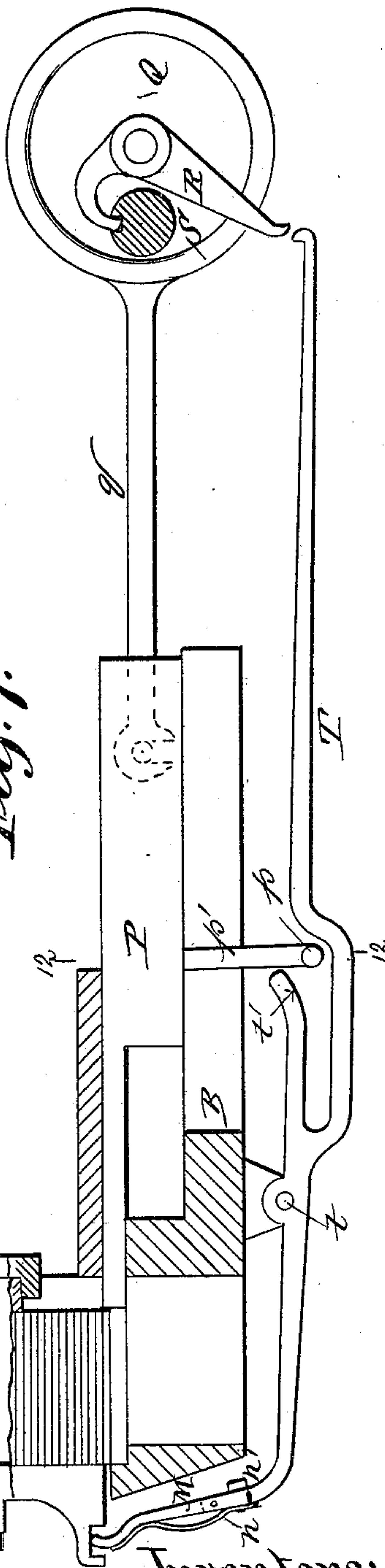


Fig. 7.



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4 Sheets—Sheet 4.

Fig. 14.

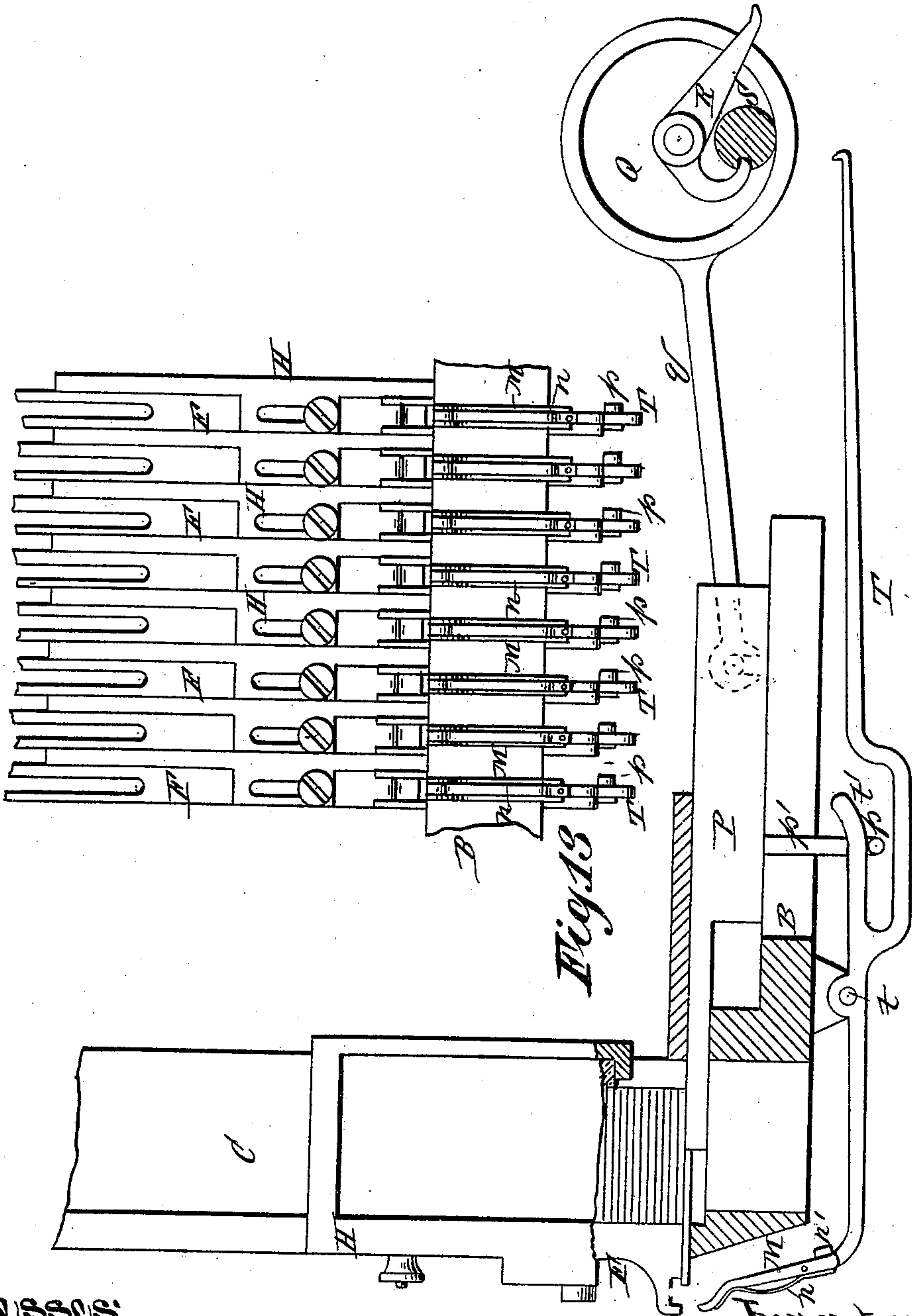


Fig. 13.

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UNITED STATES PATENT OFFICE.

LOUIS KOSSUTH JOHNSON AND ABBOT AUGUSTUS LOW, OF NEW YORK,
N. Y., ASSIGNORS TO THE ALDEN TYPE MACHINE COMPANY, OF SAME
PLACE.

TYPE-SETTING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 641,296, dated January 16, 1900.

Application filed October 22, 1896. Serial No. 609,652. (No model.)

To all whom it may concern:

Be it known that we, LOUIS KOSSUTH JOHNSON and ABBOT AUGUSTUS LOW, citizens of the United States, residing in the city of New York, (Brooklyn,) in the county of Kings and State of New York, have invented certain new and useful Improvements in Type-Setting Apparatus, of which the following is a specification sufficient to enable others skilled in the art to which the invention appertains to make and use the same.

Our invention relates to the class of type-setter cases in which the removal of the types by hand sets in motion mechanism by which the succeeding types are forwarded into position for removal by hand. One method of accomplishing this end is by the use of a trigger-lever, through the medium of which the advanced types lock the type-forwarding mechanism, the withdrawal of the forwarded types causing said trigger-lever to release the clutch upon the power-shaft, so that the type-forwarder is made to reciprocate as in our concurrent application for patent, Serial No. 608,600, filed October 12, 1896.

During the withdrawal of the forwarded types by hand they are necessarily drawn over the forward end of the trigger-lever, and as the latter has to counteract the tendency of the clutch to rotate with the power-shaft by reason of frictional contact therewith its forward end bears against the forwarded types with considerable force.

An important feature of our invention consists in providing the forward end of the trigger-lever with a yielding type-bearing which, while effectually holding the forwarded type in position for removal, gives way to the types as they are withdrawn and returns automatically into its normal position after they have passed. By this means we reduce the resistance to be overcome by the fingers of the compositors while withdrawing the type to the minimum, rendering the device delicate and sensitive to the touch and avoiding undue wear or injury to the types.

Another feature of our present invention relates to the means employed for effecting the temporary depression of the forward end of the trigger-lever before the advancing types, so as to avoid contact with their faces,

and consists in causing the type-forwarder to act directly upon the trigger-lever to control the latter during the reciprocation of the mechanism, substantially as hereinafter set forth.

Still another feature of our present invention consists in making the channel-holder of skeleton form, thereby reducing its cost and weight without impairing its functions.

In the accompanying drawings, Figure 1 is a vertical longitudinal sectional elevation of the essential parts used in connection with a single channel and holder, the parts being at rest in their normal positions. Fig. 2 is a top view of the pusher, and Fig. 3 an end elevation thereof. Fig. 4 is a front view of the front end of the trigger-lever; Fig. 5, a side view thereof, showing the yielding bearing in section. Fig. 6 is a front elevation of the yielding bearing detached. Fig. 7 is a sectional elevation showing the position of the parts immediately after the removal of the forwarded type. Figs. 8, 9, and 10 are elevations in detail of the channel-holder. Fig. 11 is a sectional elevation showing the position of the parts at the completion of the forward stroke of the type-pusher. Fig. 12 is a section upon plane of line 12 12, Fig. 7; Fig. 13, a sectional elevation showing the position of the parts during the forward stroke of the type-pusher. Fig. 14 is a front elevation of a series of channel-holders, &c.

C is the type-containing channel; H, the channel-holder; F, the front guard, and B the supporting-bed. These parts are all like those shown in my concurrent application hereinbefore referred to, except the channel-holder H, which, though essentially the same, is made skeleton form, as shown in Figs. 8, 9, and 10.

The type-pusher P is actuated through the pitmen *q* by the eccentric Q on the power-shaft S, the pawl R being controlled by the trigger-lever T, as heretofore.

The trigger-lever T behind its pivot *t* is formed with a cam-surface *t'*, so situated that during the forward stroke of the pusher P it will be acted upon by the lifter *p* upon the extension *p'* of the pusher P, thereby depressing the forward end of the trigger-lever, as shown in Figs. 11 and 13. When the parts

are at rest and in their normal positions, as shown in Fig. 1, the lifter *p* is free of contact with the lever T, so that the forward end of the latter rests against the under side of the
5 forwarded type, as shown in Fig. 1.

The forward end of the trigger-lever T is provided with a pivoted finger M, a spring *n* tending constantly to hold the finger M upright in its normal position with its step *n'*
10 resting against the lever. During the withdrawal of the types this finger M yields or gives way sufficiently to relieve them of undue strain or frictional contact, returning immediately to its normal position after the
15 types have passed.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. In a type-setter case substantially as described the combination of the type-channel
20 holder and forwarding mechanism, a type-forwarder, a trigger-lever formed with an inclined surface and a lifter for engaging with said inclined surface traveling parallel and suspended from the pusher substantially in
25 the manner and for the purpose described.

2. The combination with the type-containing channel, channel-holder, and type-forwarding mechanism substantially as described, of the trigger-lever T, formed with
30 the pivoted type-finger N, and spring *n*, and

stop *n'*, whereby the type-finger is allowed to yield during the withdrawal of the type and to spring back into its normal position after the types have been withdrawn, substantially
35 in the manner and for the purpose described.

3. The combination with a type-channel, channel-holder, and type-forwarding mechanism, of the pusher P, formed with the downwardly-projecting arm *p'*, having the lateral
40 lifter *p*, whereby said lifter *p*, has a parallel movement with the pusher P, and the trigger-lever T, formed with the inclined surface *t'*, the whole arranged and operating substantially in the manner and for the purpose described.
45

4. The combination with a type-channel, channel-holder, and type-forwarding mechanism consisting of the shouldered power-shaft S, eccentric Q, eccentric-rods *q*, and the gravity-pawl R, of the pusher P, formed with
50 the dependent lifter *p'*, moving parallel therewith and the trigger-lever T, provided with the yielding type-finger N, *n*, the whole arranged and operating substantially in the manner and for the purpose described.

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