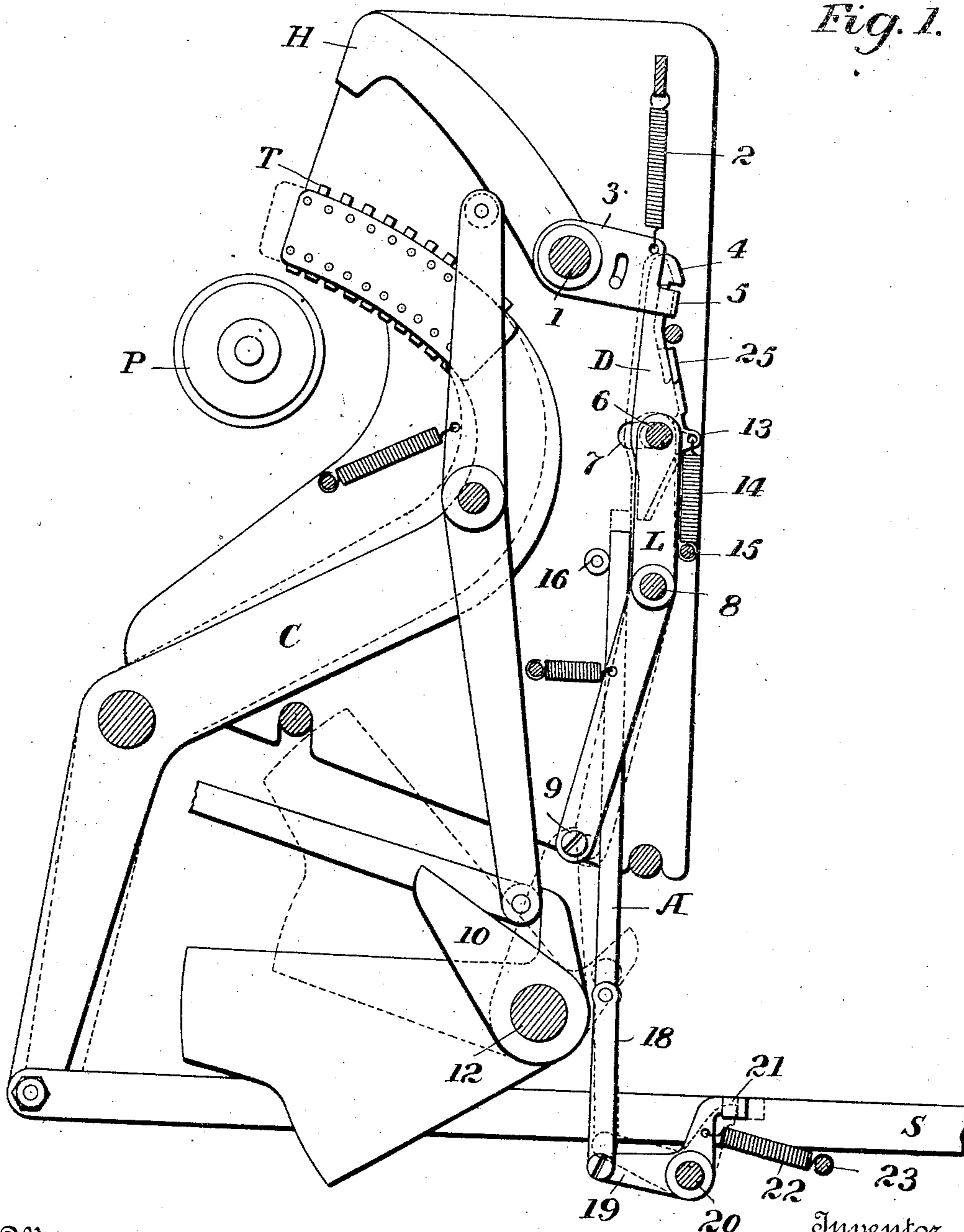


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W. H. PIKE, JR.
RECORDING MECHANISM.
APPLICATION FILED JAN. 29, 1907.

Patented Mar. 23, 1909.
2 SHEETS—SHEET 1.

Fig. 1.



Witnesses
J. G. Stink
J. J. McCarthy

by

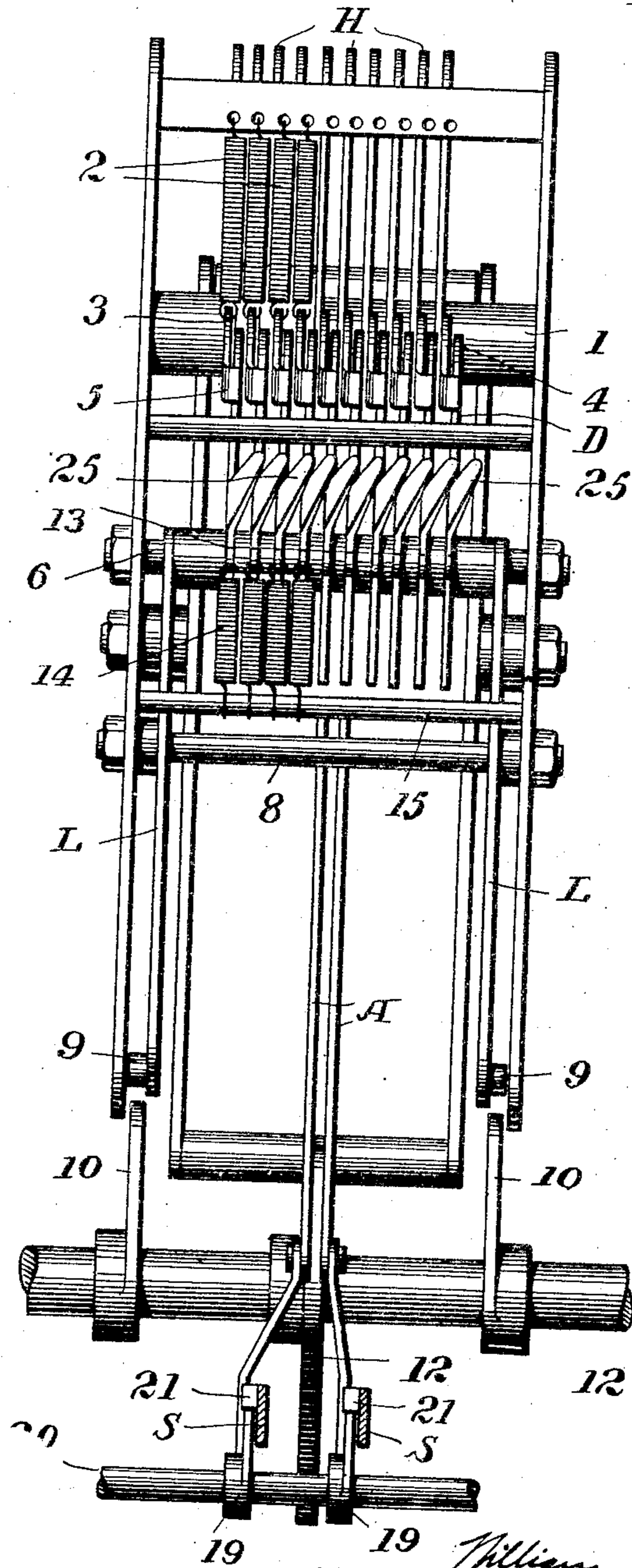
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Fig. 2.



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UNITED STATES PATENT OFFICE.

WILLIAM H. PIKE, JR., OF ORANGE, NEW JERSEY, ASSIGNOR TO PIKE ADDING MACHINE COMPANY, OF ORANGE, NEW JERSEY, A CORPORATION OF NEW JERSEY.

RECORDING MECHANISM.

No. 915,888.

Specification of Letters Patent.

Patented March 28, 1909.

Application filed January 29, 1907. Serial No. 354,780.

To all whom it may concern:

Be it known that I, WILLIAM H. PIKE, JR., a citizen of the United States, and a resident of the city of Orange, county of Essex, and State of New Jersey, have invented certain new and useful Improvements in Recording Mechanism, of which the following is a specification.

My invention relates to that class of recording mechanism in which hammers or other devices actuated by pressure or percussively, are brought to act upon type supported by movable carriers and brought into position above a platen.

My invention consists of means whereby to control the action of the hammers, as fully set forth hereinafter and as illustrated in the accompanying drawings, in which—

Figure 1 is a sectional elevation of sufficient of a recording mechanism to illustrate my invention; and Fig. 2 is a front elevation showing a sufficient number of parts to enable the construction to be understood.

For purposes of illustration I have shown my improvements in connection with a cylindrical platen B, a series of type carriers C, each carrying a number of type T capable of sliding longitudinally, and hammers or pushers H pivoted on a shaft 1, which parts may be of suitable construction, and which as shown correspond to those of a similar construction and arrangement illustrated in my Letters Patent #763,692, issued June 28, 1904. With the type carriers C in all apparatus of this character are combined means for moving the said carriers so as to bring different type into position to print, said moving means in the construction shown being provided with strips S pivoted to the tails of the carriers and serving by their longitudinal movements of different extents to set the carriers in positions to bring different type above the platen. The hammers H may be reciprocated or vibrated in any suitable manner. As shown, they are spring-actuated, so as to operate percussively, a spring 2 being connected to an arm 3 of each hammer, and the hammers are retained in their elevated positions by means of detents D, each of which has a hook 4 for engaging

a bearing 5 on the coacting arm 3 and has also a pivot between its ends on which the detent may swing, the said pivot being in the form of a cross-bar 6, the ends of which extend into slots 7 in the slide plates. The cross-bar 6 is carried by levers L, swinging on a cross-bar 8, the lower ends of the levers having studs 9, against which may be brought arms 10 on a rock shaft 12. At the front edge of each detent is a lip 13 with which is connected one end of a spring 14, the other end connected to a stationary cross bar 15. Coacting with each detent D is a stop A, in the form of a vertical bar extending upward and bearing against a roller or other bearing 16 and capable of being raised vertically so as to occupy a position at the rear of the lower end or tail of the detent and of being lowered below said tail, and with each stop is combined means capable of being set by the part which operates the adjacent type carrier so that the stop will be raised in position to coact with the detent whenever one of said parts is moved to set the type carrier to bring any type into printing position. While these parts may be differently constructed, I have shown each stop A as connected by a link 18 with an arm of a bell-crank lever 19, pivoted to swing upon a cross shaft 20, the other arm in position to contact with a stud 21 on the adjacent strip S, the strip S being held in contact therewith by a spring 22 connected to the said arm and to a stationary cross bar 23. As the stop bars A are necessarily spaced to the same extent as the different detents and hammers, and as the strips S are more widely separated, the links 18 will diverge outwardly.

Normally, the parts prior to operation will be in the position shown in Fig. 1 and the shaft 12 will rock back and forth once at each operation of the machine, and the arms 10 will be brought against the studs 9 and will vibrate the levers L, and as the springs 14 tends to hold the upper ends of the detents against the bearings 4, the detents will be vibrated as the cross-bar 6 is swung by the levers L, the fulcra being at the upper ends of the detents. This will be the operation in connection with any of the

above described parts where a carrier is not set in the position to bring a type into printing relation with the detent and the coacting hammer. When, however, one or more of the strips S is moved so as to move the connected carrier or carriers C to any extent to bring any type into printing position, the stud 21 will be carried forward and the spring 22 will rock the lever 19, and the connected stop A will be elevated to a position in the rear of the tail of the adjacent detent. This will result in transferring the fulcrum of the said detent from the upper to the lower end, because as the cross bar 6 moves backward, the tail of the detent contacting with the stop A, will be arrested and will bear upon the end of the stop as a fulcrum, and the upper end will be swung away from the bearing 5, releasing the hammer H, which will then be thrown against the type below it and make the requisite imprint upon the paper.

As in the apparatus of the above described patent, each detent B has a wing 25 which extends laterally in position to make contact with the next detent at the right, as shown in Fig. 2, so that if none of the type carriers at the right of the detent which has thus been operated, have been set to print, the detents of the said carriers will all be swung back to release the hammers to print ciphers in the manner which will be readily understood and which need not be further described.

Without limiting myself to the construction and arrangement of parts shown, what I claim is:

1. The combination with the type and hammers of recording mechanism, of means for carrying the hammers toward the type, a detent for each hammer engaging at one end a part connected with the hammer, means for swinging said detent laterally, and a stop device adjustable to and from a position to obstruct the movement of the detent at the other end.

2. The combination with the type and hammers of a recording mechanism, of detents each engaging at the upper end a part connected with one of the hammers, and each pivoted between its ends, means for laterally reciprocating the detents, and a stop device for each detent adjustable to and from a position to obstruct the lateral movement of the lower end of the detent.

3. The combination with type, carriers, operating devices, and hammers of a recording mechanism, of detents, each engaging at the upper end a part connected with one of the hammers and each pivoted between its ends, means for laterally reciprocating the detents, a stop device for each detent adjustable to and from a position to obstruct the lateral movement of the detent at the lower

end, and means for shifting each stop device into obstructing position on the movement of the associated carrier to bring a type into printing position.

4. The combination with the type carriers, operating devices and hammers of a recording mechanism, of a pivoted detent engaging each hammer, means for normally swinging said detent about its point of engagement with the hammer, and a stop device adjustable to shift the fulcrum of the detent to the opposite end.

5. The combination in a recording mechanism, of hammers, a detent engaging a bearing of each hammer, means for swinging each detent laterally, and a stop device adjustable to a position to constitute a temporary fulcrum for the detent.

6. The combination in a recording mechanism, of hammers, type carriers and type, and means for actuating the type carriers, of a detent engaging a bearing of each hammer, means for swinging each detent laterally, a stop adjustable to a position to constitute a temporary fulcrum for the detent, and means for adjusting the said stop to operative position on shifting the type carrier actuating means.

7. The combination in a recording mechanism, of hammers, detents, a cross bar to which each detent is pivoted between its ends, means for swinging said cross bar, and a stop device adjustable to a position to contact with the lower end of each detent for the purpose set forth.

8. In a recording mechanism, the combination with adjustable type carriers, operating means therefor, type movable on the carriers, hammers, and detents for holding the hammers out of action, of stops, adjustable relative to the type carriers and detents, for controlling the action of the detents, and means controlled by the type carrier operating means for adjusting said stops.

9. In a recording mechanism, the combination with adjustable type carriers, operating means therefor; type movable on the carriers, hammers, and detents for holding the hammers out of action, of reciprocating stops operable from the type carrier operating means for controlling the action of said detents.

10. In a recording mechanism, the combination with adjustable type carriers, operating means therefor, type movable on the carriers, hammers, and detents for holding the hammers out of action, of stops, adjustable at an angle to the path of movement of the type carriers for controlling the action of the detents, and means controlled by the type carrier operating means for adjusting said stops.

11. In a recording mechanism, the combination with adjustable type carriers, operat-

ing means therefor, type movable on the carriers, hammers, and detents for holding the hammers out of action, of vertically adjustable stops for controlling the action of the
5 detents, and means controlled by the type carrier operating means for adjusting said stops.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM H. PIKE, JR.

Witnesses:

J. L. WHITE,

ARTHUR PENTECOST.