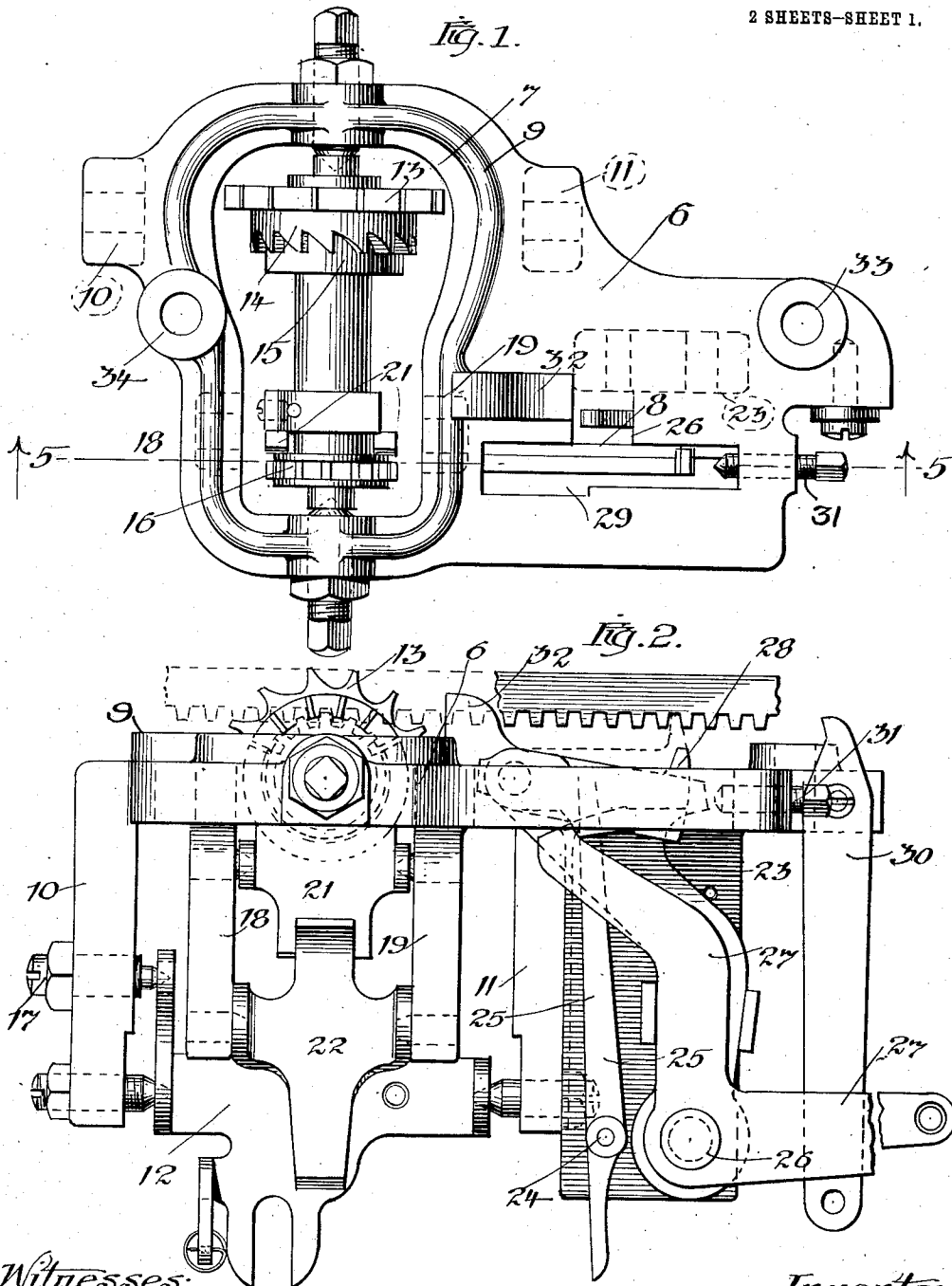


A. STIEG.
 HOLDER FOR TYPE WRITER ESCAPEMENT MECHANISMS.
 APPLICATION FILED MAR. 22, 1911.

1,021,641.

Patented Mar. 26, 1912.

2 SHEETS-SHEET 1.



Witnesses:
 Frank S. Blanchard
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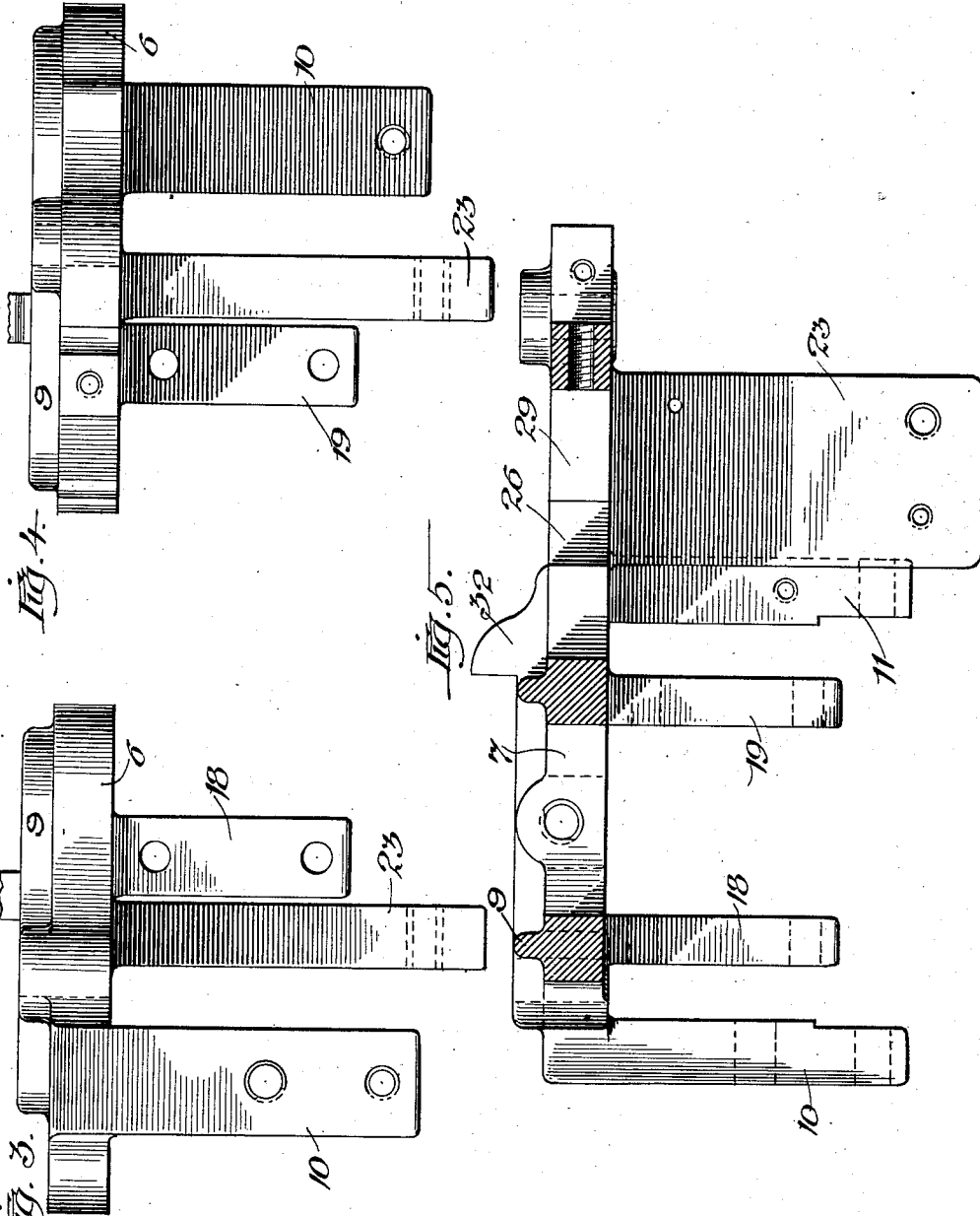
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UNITED STATES PATENT OFFICE.

AUGUST STIEG, OF WOODSTOCK, ILLINOIS, ASSIGNOR TO THE EMERSON TYPEWRITER CO., OF WOODSTOCK, ILLINOIS, A CORPORATION OF ILLINOIS.

HOLDER FOR TYPE-WRITER ESCAPEMENT MECHANISMS.

1,021,641.

Specification of Letters Patent.

Patented Mar. 26, 1912.

Application filed March 22, 1911. Serial No. 616,190.

To all whom it may concern:

Be it known that I, AUGUST STIEG, a citizen of the United States, residing at Woodstock, in the county of McHenry and State of Illinois, have invented certain new and useful Improvements in Holders for Type-Writer Escapement Mechanisms, of which the following is a specification.

The present invention relates to a framework or holder adapted to receive and support various escapement mechanisms utilized on a typewriter.

The objects of the present invention are, to secure several of the various escapement mechanisms of a typewriter to a holder or framework, which will be readily removable in a unitary condition from the machine, whereby the removal of the escapement mechanisms for the purpose of adjustment or repair will be an easy and simple operation.

A further object of the invention is to utilize the points of attachment which secure this framework to the body of the typewriter as indicating or centering points to guide the workman in properly adjusting the various escapement mechanisms to position them in desired co-relation to one another.

A still further object of the invention is to provide various members which will be carried by the framework for adjusting and limiting the movements of the selected escapement mechanisms, and to so construct the framework that it is strong and durable of construction and simple and easy of manufacture.

The invention further relates to the features of construction and the combination of parts hereinafter described and claimed.

In the drawings, Figure 1 is a plan view of the framework of the present invention, showing a series of escapement mechanisms positioned thereon; Fig. 2, a front elevation of the parts shown in Fig. 1; Fig. 3, a side elevation of the framework with the escapement mechanisms removed; Fig. 4, a view similar to Fig. 3, viewed from the opposite side of the machine; and Fig. 5, a cross-section view of the framework with the escapement mechanisms removed.

In the typewriter art there are several mechanisms known as escapement mechanisms which directly control the various

movements of the carriage. The correct operation of these mechanisms is probably as important as the correct operation of any of the mechanisms entering into typewriter construction, since they govern directly the correct operation of the carriage of the machine. If these escapement mechanisms are out of order or not properly adjusted, the machine is vitally defective. It has heretofore been the practice, so far as I am aware, to mount these mechanisms independently of one another, and in some cases the mounting was such as to make it quite a difficult matter to remove the mechanisms for the purpose of adjustment or repair. It has furthermore been found difficult to adjust these mechanisms in proper co-relation to one another so as to time the different movements properly. One of the main objects of the present invention is to overcome these difficulties.

The holder or framework of the present invention comprises an upper plate-like member 6, which is apertured at 7 and at 8, and may, if desired, be provided with a reinforcing flange 9. The upper member 6 has secured thereto, companion depending lugs 10 and 11, which are positioned adjacent the rear of the structure, viewing the parts as shown in the drawings; and between these lugs 10 is mounted a plate 12, which carries suitable dogs (not shown) for actuating a star wheel 13. This star wheel in turn is connected through the medium of clutch members 14 and 15 to a sprocket wheel 16, which engages the rack bar. It is understood, however, that the particular form of escapement mechanism which may be shown or described in conjunction with this device is not deemed to be a part of the present invention, but is merely shown for illustrative purposes, it being understood that other and various forms of escapement mechanism may be utilized with the holder of the present invention without departing from the spirit thereof.

There is only one point in conjunction with the mechanism heretofore described which is deemed to enter into the spirit of the present invention; that is, a threaded member 17, which is best shown in Fig. 2, and which acts as a stop member to limit the movements of the plate 12 carrying the dogs actuating the star wheel 13. By means

of adjusting this threaded member, the throw of these dogs may be varied to suit the requirements. It will be noted that this adjusting member is mounted in and carried by a portion of the framework.

Attached to the plate 6 are depending lugs 18 and 19, which are located toward the forward side plate and have mounted therebetween a yoked member 21 and a fingered member 22. This yoked and fingered member serve to pull the clutch members 14 and 15 out of engagement and so permit the carriage to travel without moving the star wheel. This device is used in conjunction with the tabulator mechanism of the typewriter and is not deemed to be a part of the present invention, being merely shown for illustrative purposes. Thus, the mechanisms which control the escapement of the sprocket wheel that engages the rack on the carriage are carried by the lugs 10, 11, 18 and 19; and since all of these lugs are connected to the plate 6, it is obvious that by the removal of said plate, this entire set of escapement mechanisms may be removed from the body of the typewriter.

Located to one side of the lugs 10, 11, 18 and 19 is a lug 23, upon which is mounted, at 24, a fingered member 25, which projects through the reduced portion 26 of the opening 8 and forms the line lock mechanism of the typewriter. But this mechanism is not a part of the present invention, any further than that it is one of the mechanisms which is carried by the framework or holder of the present device. Also pivoted to the plate 23 at 26 is a bell-crank lever 27, which actuates a dog 28, the acting end of which projects through the enlarged portion 29 of the aperture 8. This constitutes the back feed mechanism of the typewriter and is not a portion of the present invention, any more than that it is one of the escapement mechanisms shown as carried by the escapement mechanism frame of the present invention. Secured to the outer portion of one side of said frame is a bell ringer mechanism 30, which may be of any suitable form and size. It is understood that all of these appliances may not be carried by the holder, unless desired, but that the holder is so designed that they may be all carried thereby if desired.

As shown in Fig. 1, a threaded member 31 projects into the slot 29, and this serves as a stop member to adjust the movement of the back feed mechanism. It will be noted that this member is carried by the escapement mechanism frame. The frame is also provided, on its upper face, with a lug 32, which acts as a carriage stop. As shown in the present illustration, the escapement frame has two points of attachment, best shown in Fig. 1, and indicated by the numerals 33 and 34. It will be noted that

these points are upon opposite sides of the framework and are in such position as to serve as guide points in centering or assembling the various escapement mechanisms. That is, by positioning the various parts with respect to these points of attachment, the entire series of escapement mechanisms can be accurately adjusted with respect to one another before the parts are positioned in the machine. This is deemed to be a matter of great importance, as it is obviously easier to effect this adjustment with the necessary degree of accuracy when the mechanisms are disconnected from the body of the machine, since the workman is not impeded in handling the tools; or the difficulties are not encountered which would be present when the escapement mechanisms are finally attached to the body of the typewriter, and are more or less covered up by the other parts of the typewriting mechanism.

Where two positive points of guidance in centering are given, it is obvious that a far more accurate adjustment of the parts can be brought about than where it is impossible to center the parts from a common fixed point and each mechanism has to be independently centered from no given fixed point. The two points of attachment 33 and 34 are in the form shown in the drawings—the only two points of secureance of the holder—so that it renders the holder and the various escapement mechanisms mounted thereon very easy of removal from the body of the machine. This is deemed to be an important point in the present invention, since it enables an operator to quickly and easily remove the escapement mechanisms for the purpose of repairing or of adjustment.

As it is possible, in the present construction, to remove all of the mechanisms by a single unfastening operation, the matter of adjustment or repair will be considerably expedited, since when adjusting or repairing is necessary to any of the parts carried by the holder, said part can be easily got at by one disassembling operation, and all of the mechanisms placed back in the machine with an assurance that the adjustment which was made after the mechanisms had been removed will be maintained during the repositioning operation. This simple method of attaching all of the escapement mechanisms to the body of the machine renders possible the removal of these mechanisms by the user if any of the parts should become broken or damaged; and the escapement mechanisms are all in such compact relation to one another as to allow of their being readily returned to the factory for repair, if necessary. This is an important point, since it has been found to be a matter of difficulty in the prior constructions of which I am

aware to return a particular portion of the escapement mechanisms to the factory without shipping the entire machine.

In addition to forming the mounting for all of the escapement mechanisms, the holder of the present invention provides a mounting for the bell ringer and for the carriage stop, practically embodying therein all of the mechanisms which are used to move the carriage and to control such movements.

Where the terms "front," "rear" and "side" are used in the specification, it is understood that these only refer to the device in the position in which it is shown in the drawings and are not intended as terms of limitation in any other way.

I claim:

1. In a typewriter, a horizontal plate adapted to assume but one position with respect to the typewriter body, means for locking said plate to said body, a series of vertically extending lugs from said plate adapted to receive the escapement mechanisms, and a lug extending from the plate in an opposite direction from the first mentioned lugs and acting as a stop for the carriage, substantially as described.

2. In a typewriter, a horizontally extending plate-like member adapted to assume but one position with respect to the typewriter body, a series of front and rear depending lugs from said plate, adapted to receive the escapement mechanisms, and a depending lug lying to one side of the first mentioned lugs and serving as a mounting for the line lock and back feed members, substantially as described.

3. In a typewriter, a horizontally extending plate-like member adapted to assume but

one position with respect to the typewriter body, a series of front and rear depending lugs from said plate, adapted to receive the escapement mechanisms, and a depending lug lying to one side of the first mentioned lugs and serving as a mounting for the line lock and back feed members, said plate being notched to provide a surface serving as a mounting for the bell ringer, substantially as described.

4. In a typewriter, a horizontal plate adapted to assume but one position with respect to the typewriter body, means for locking said plate to said body, a series of vertically extending lugs from said plate adapted to receive the escapement mechanisms, and a lug extending from the plate in an opposite direction from the first mentioned lugs and acting as a stop for the carriage, said plate being notched to provide a surface serving as a mounting for the bell ringer, substantially as described.

5. In a typewriter, a horizontally extending plate-like member adapted to assume but one position with respect to the typewriter body, a series of front and rear depending lugs from said plate, adapted to receive the escapement mechanisms, and a depending lug lying to one side of the first mentioned lugs and serving as a mounting for the line lock and back feed members, said plate being recessed to permit of the projection there-through of the acting portion of the carriage feed, line lock, and back feed mechanisms, substantially as described.

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Witnesses:

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A. J. PRUSZYNSKI.