Dec. 23, 1924. 1,520,127

F. A. HART

TYPEWRITING MACHINE

Filed Feb. 10, 1923

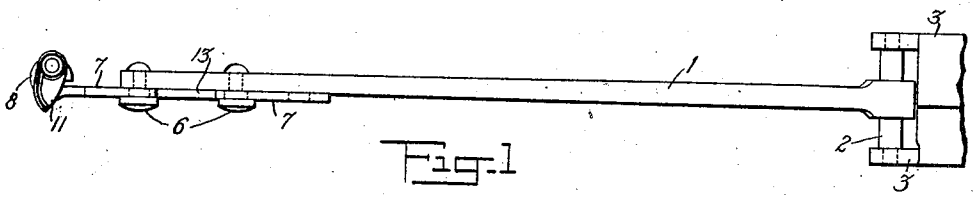


Fig. 1

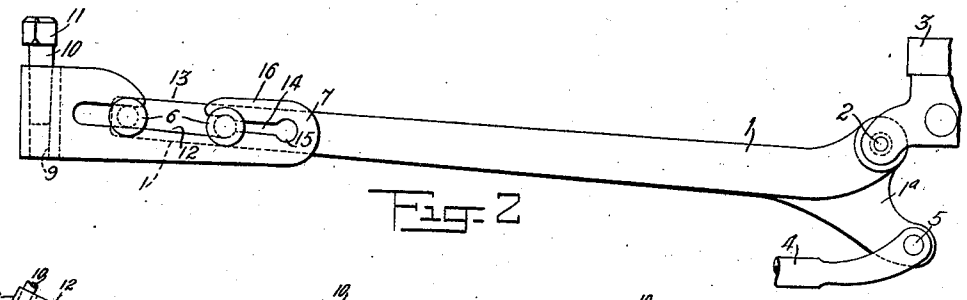


Fig. 2

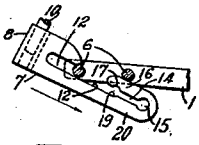


Fig. 3

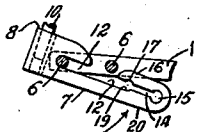


Fig. 4

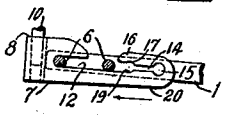


Fig. 5

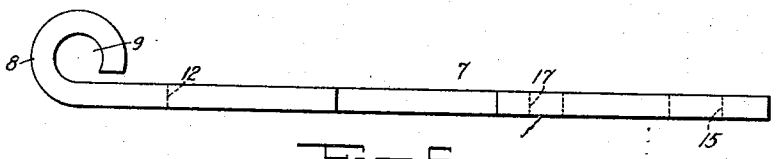


Fig. 6

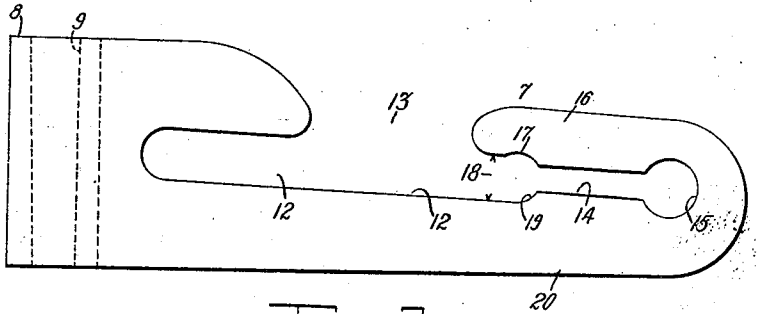


Fig. 7

WITNESSES

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Patented Dec. 23, 1924. 1,520,127

UNITED STATES PATENT OFFICE.

FREDERICK A. HART, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO REMINGTON TYPEWRITER COMPANY, OF ILION, NEW YORK, A CORPORATION OF NEW YORK.

TYPEWRITING MACHINE.

Application filed February 10, 1923. Serial No. 618,180.

To all whom it may concern:

Be it known that I, FREDERICK A. HART, citizen of the United States, and resident of New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Typewriting Machines, of which the following is a specification.

My invention relates to detachable types for the type bars of writing machines, and its principal object is to provide a detachable type carrying member of cheap and simple construction which may be readily attached to and held rigidly on the body of the type bar, and may readily be detached therefrom and replaced by another type carrying member of similar construction but with a different type.

To the above and other ends which will hereinafter appear, my invention consists in the features of construction, combinations of devices, and arrangements of parts to be hereinafter described and particularly pointed out in the appended claims.

The preferred form of my invention is illustrated in the accompanying drawings wherein—

Figures 1 and 2 are respectively a top plan view and side elevation, drawn to an enlarged scale, of a type bar embodying my invention.

Figures 3, 4 and 5 are fragmentary operating views showing the manner in which the type carrying member is attached to the body of the type bar; and

Figures 6 and 7 are respectively a top plan and side elevation of the detachable type carrying member drawn to an enlarged scale.

As shown in the present instance, the type bar is made in two parts, the bar portion 1 being provided with a pivot 2, which engages rotatively in a hanger 3, which may be secured to the type bar support of the machine. The two-part type bar is adapted to be swung on its pivot 2 from its normal position of rest into operative contact with the platen (not shown) by key operated type bar actuating devices which may comprise a link 4 pivotally connected at 5 to the tail portion 1^a of the type bar. Near its free end the stub bar or body portion 1 may be provided with two laterally projecting headed pins or rivets 6 spaced apart and comprising connections designed to co-operate with the other type bar part or detachable type carrying member. Said part or member, shown separate in Figs. 6 and 7 and designated as a whole by the numeral 7, is preferably made of sheet metal, the body of the member being plate-like in form and its forward end being curled at 8 to provide an opening or socket, indicated at 9, which may receive the shank 10 of a type proper 11. The shank 10 may be slightly tapered and the hole or socket 9 correspondingly reamed out on a taper so as to permit the type readily to be secured in place by a driving fit. The body of the disconnectible or detachable member 7 is formed with an elongated slot, indicated at 12, the opposite ends of said slot being closed and one of its sides, i. e., the upper side, being formed with a transverse opening or mouth indicated at 13, the width whereof is less than the distance apart of the projections or pins 6. The portion of the slot 12 forward of the transverse entrance or mouth 13 has parallel sides which are spaced apart, providing a rigid jaw or tongue and so as to fit snugly over the shank of the forward one of the two headed pins 6. The thickness of the metal of which the type bar part 7 is composed is such that said plate is closely confined between the under or inner face of the head of said pin and the adjacent face or side of the bar 1. The portion of the slot 12 rearward of the mouth 13 is narrowed, as indicated at 14, the narrow portion terminating in an eye 15. This construction provides an upper jaw 16 which has sufficient springiness or yield to act as a detent or interlock in association with the rearmost pin 6. The under face of the jaw 16 is slightly cut out near its free end, as indicated at 17, so as to fit over the top part of said pin, and forward of said cut-out the under edge of the jaw is so shaped that the space between it and the bottom edge of the slot 12, which space may be designated by the numeral 18, is slightly less than the diameter of the pin or rivet 6. This necessitates that the jaw or tongue 16 must yield or give in order that the slot may expand and the pin may interseat with the cut-out or depression 17, and after thus yielding, expanding or giving the spring of the jaw is sufficient to snap it over the pin and detent it or interlock with

it and press a lower section of the round pin into a notch or recess 19 in the shank 20 of the type-carrying member.

In Figs. 3, 4 and 5 I have illustrated the method of attaching the novel type carrying member 7 to the type bar. Preferably the bar is first swung up close to the platen and away from the other bars of the set, thus rendering it more accessible for the application of the type carrying member 7. In applying said member the type bar or body 1 may be held by the left hand of the operator and the member 7 connected or attached by the right hand. First the member is passed over the body of the bar at an angle, as shown in Fig. 3, the forward pin 6 passing through the mouth 13 of the slot 12 and being brought opposite the opening of or entrance to the forward portion of said slot, thus bringing the parts into the Fig. 3 relationship. Thereafter the member 7 is pushed or thrust rightward, as indicated by the arrow in Fig. 3, causing the slot to traverse the forward pin until the member 7 is arrested by the engagement of the front closed end of the slot with the pin, as shown in Fig. 4. Next the member 7 is swung upward pivotally about the front pin 6, as indicated by the arrow in Fig. 4, the rear pin 6 passing relatively through the mouth of the slot 12, the pivotal movement of the member continuing until the bottom edge of the slot contacts with the rear pin 6, as illustrated in Fig. 5. Finally the member 7 is pulled longitudinally forward or towards the left, as indicated by the arrow in Fig. 5, the rear pin springing the jaw 16 slightly and interseating with the depression 17 and the corresponding bottom portion or opposite edge 19 of the slot-way 12, as illustrated in Fig. 2. The construction is such that the piece 7 is thus held substantially rigidly on the body of the bar, being confined snugly between the heads of the pins 6 and the face of the bar 1 so that rattling is prevented. The tongues or jaws separated by the entrance-way 13, overhang the pins 6 and hold them against the bottom edge of the slot 12. Moreover, the detent or interlock 16, engaging tightly with the rear pin 6, will prevent any sliding or slipping of one of the parts on the other. The narrow or contracted portion 14 of the slot 12 is considerably less in width than the diameter of the rear pin 6, so that the said pin is positively stopped by the front end of said narrow portion, and consequently when the type bar is swung pivotally on the center 2, any tendency, due to centrifugal force, of the member 7 to move outward or longitudinally of the part 1 and away from the pivot 2 is checked and prevented by the rear pin.

My present construction has been designed more particularly for the No. 11 Remington typewriting machine and is intended primarily to be applied to the outer face of the right-hand type bar of the set of type bars of such machines when employed in connection with the usual Remington-Wahl computing devices. In such Remington-Wahl computing machines all the number keys are intended to operate the computing mechanism and it has been found undesirable in practice to have the number keys actuated for writing dates and the like. In order to overcome this objection my invention was designed for the purpose of enabling one of the type bars, preferably the right-hand type bar of the set of type bars, to be used as a dating type bar, there being provided a full set of thirty-one disconnectible type bar parts or detachable members 7, each provided with a different number type and each intended of course to be used only for the appropriate day of the month, the plates 7 being attached and detached daily in rotation to the pivotal or main part of the type bar. It will be understood of course that the general idea of the invention may be extended and that one of the other type bars, say the next adjacent type bar at the left, may be employed for writing the months, logotypes similar in construction to the detachable member 7 being employed for this purpose in connection with a stub type bar. It is of course evident that the principles of the invention may be made use of in other connections than that for which the invention was primarily designed and as illustrated herein.

What I claim as new and desire to secure by Letters Patent, is:—

1. A type bar for writing machines comprising two parts, and disconnectible connections between said parts comprising a plurality of projections on one of said parts, said projections engaging in a slot in the other part, said slot being provided with oppositely closed ends and being expansible near one end portion.

2. A type bar for writing machines comprising two parts, and disconnectible connections between said parts comprising a plurality of projections on one of said parts, said projections engaging in a slot in the other part, said slot being provided with oppositely closed ends and having a mouth or opening in one of its sides between said closed ends through which mouth said projections are adapted to pass.

3. A type bar for writing machines comprising two parts, and connections between said parts comprising a pair of headed pins spaced apart and projecting from the side of one part, the other part being formed with a slot in which said pins are adapted to engage, said slot having its opposite ends

closed, the slotted part being provided with a detent interlocking with one of said headed pins, said detent being formed by a portion of the slotted part itself.

4. A type bar for writing machines comprising a pivoted body portion and a sheet metal type carrying portion detachably secured to said body portion, said body portion being provided with two laterally projecting headed pins or rivets, and said type carrying portion being slotted to engage with said rivets, the slot being shaped to provide a spring detent that interlocks with one of said rivets and also being formed so as to prevent displacement of said sheet metal type carrying portion due to centrifugal force when the type bar is swung on its pivot.

5. A detachable type carrying member for a type bar, said member being formed with a slot to engage projections on the body of the type bar, the slot providing a spring jaw to interlock with one of said projections and a rigid jaw to co-operate with the other projection.

6. A detachable type carrying member for a type bar, said member being preferably made of sheet metal having an eye to receive the type proper and being formed with a slot to engage projections on the body of the type bar, the slot providing a spring jaw to interlock with one of said projections and a rigid jaw to co-operate with the other projection.

7. A type bar for writing machines comprising a pivoted body portion and a detachable type-carrying portion, one of the portions having projections and the other a slot with a transverse entrance mouth of a width less than the distance apart of said projections.

8. A type bar for writing machines comprising a pivoted body portion and a detachable type-carrying portion, one of the portions having projections and the other having a slot to receive said projections, the said slotted portion being formed with separate overhanging tongues which hold said projections against the bottom edge of the slot when the parts are properly assembled and to prevent movement of the type-carrying portion on and relatively to the slotted portion.

9. A type bar for writing machines comprising a pivoted body portion and a detachable type-carrying portion, one of the portions having projections and the other having a slot, one portion of the slot being wider than the other, the narrower portion being shaped to provide a stop for one of the projections and also to provide an integral spring detent.

Signed at the borough of Manhattan, city of New York, in the county of New York, and State of New York, this 8th day of February, A. D., 1923.

FREDERICK A. HART.

Witnesses:

CHARLES E. SMITH,

E. M. WELLS.