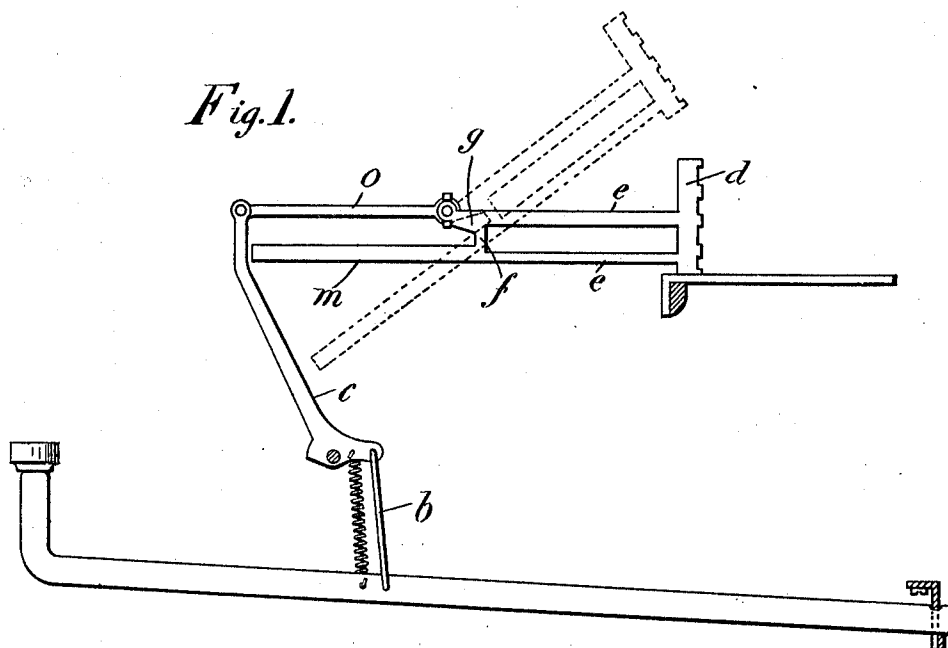
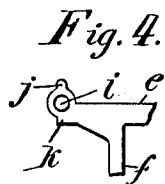
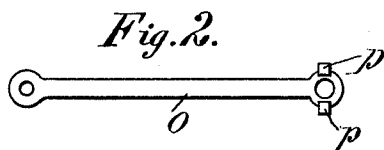


C. W. DAVIS.
 TYPE BAR CONNECTION FOR TYPE WRITERS AND THE LIKE.
 APPLICATION FILED DEC. 31, 1906.

993,582.

Patented May 30, 1911.



Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES WESLEY DAVIS, OF MONTREAL, QUEBEC, CANADA.

TYPE-BAR CONNECTION FOR TYPE-WRITERS AND THE LIKE.

993,582.

Specification of Letters Patent.

Patented May 30, 1911.

Application filed December 31, 1906. Serial No. 350,289.

To all whom it may concern:

Be it known that I, CHARLES WESLEY DAVIS, of the city of Montreal, Province of Quebec, Canada, have invented certain new and useful Improvements in Type-Bar Connections for Type-Writers and the Like; and I do hereby declare that the following is a full, clear, and exact description of the same.

10 My invention has for its object to provide means whereby the connection between the key lever and type-bar is made readily detachable.

The invention may be said briefly to consist of a pair of members one carried by the type-bar and the other being operatively connected to the key-lever, these members being adapted to interlock and effect an operative connection between the type-bar and key lever when the parts are in operative position, and be completely disconnected by moving such members to different relative positions. For full comprehension, however, of my invention reference must be had to the accompanying drawings forming a part of this specification in which similar reference characters indicate the same parts and wherein—

Figure 1 is a side elevation of a type-bar and its operative mechanism, embodying my invention; Figs. 2 and 3 illustrate in side and end elevations respectively, the pitman bearing a portion of my invention; and Fig. 4 is a detail side elevation of a portion of the type-bar bearing portion of my invention.

The sliding connections heretofore utilized between each key lever and its type bar are dispensed with and, instead, a pivoted link, bell-crank, and pitman are substituted. The link is indicated at *b* and the bell-crank lever at *c*.

The type bar comprises a vertical bar *d* (carrying the upper and lower case and figures and other usual characters) a pair of horizontal bars *e* and a vertical yoke *f* of usual construction, and it is formed with a short arm *g* in line with the upper horizontal bar *e* and having a rigid stud *i*, a vertical lug *j* and a shoulder *k*, the latter being diametrically opposite to and in vertical line with the said lug; while a guiding arm *m* extends in line with the lower horizontal bar *e*, such horizontal bars and yoke constituting a frame for supporting the vertical bar.

The vertical arm of the bell-crank-lever has one end of the pitman (indicated at *o*) pivoted thereto, the opposite end of such pitman being perforated and having a pair of bent lugs *p*, adapted when the type-bar is in working position, to receive the lug *j* and shoulder *k* between them with the stud *i* projecting through and rotatable in the said perforated end of the pitman. This constitutes a novel pivotal connection (which is the subject matter of this invention) between the pitman, the operating part, and the type bar, the part operated thereby, and while the vertical oscillatory movement of the pitman, during operation, is insufficient to cause the bent lugs *p* to become disengaged from the lug and shoulder (*j* and *k*), the type bar (upon removal of the usual type-bar top-plate not shown) is free to be tilted to the position shown in dotted lines for the purpose of disengaging the shoulder *k* from the lower bent lug *p* and the lug *j* from the upper bent lug, and allowing the type-bar to be readily removed. This removal of the type-bar has heretofore been a difficult matter.

Although I have illustrated and described my invention in connection with a type-bar and its operating part I do not confine myself to such application, as my invention is equally applicable to the connection of other members having slight relative oscillatory motion.

I do not herein claim the type bar construction and its actuating members, other than the specific pivotal connection shown, as such parts form the subject matter of a separate application filed by Mr. George William Davis on January 3, 1907, under Serial No. 350,638.

What I claim is as follows:

1. In a typewriting machine, the combination of a link having a pair of bent lugs and a perforation adjacent to one end thereof, a type-bar having means to pivotally engage the perforation of said link and members adapted to coact with said lugs to prevent relative lateral disengagement of said link and type bar when in operative position but permit disengagement thereof when in abnormal position, a key lever, a secondary lever, operative connections between said levers, and means for operatively connecting one end of said secondary lever with one end of said link.

2. In a typewriter, in combination, a type-

bar member, a link member, operating mechanism connected to the link member, means effecting a pivotal connection between such members, and a pair of bent lugs provided on one of said members on opposite sides of the pivotal connection and adapted to engage the other member when the parts are in normal position, and disengage therefrom when the parts are in abnormal position, for the purpose set forth.

3. In a typewriting machine the combination with a thrusting type-bar and a key for operating the same, of an arm extending from the type-bar and presenting a pair of projections at opposite sides of the end of such arm, a pitman having a perforated end with a pair of bent lugs adapted to receive the said projections and prevent axial displacement of the end of the pitman relatively to the arm while allowing a pivotal action of the pitman, means pivotally connecting the said end of the pitman to the said arm, means whereby reciprocatory movement is transmitted from the key to the other end of the pitman.

4. In a typewriting machine, the combination with a thrusting type-bar and a key for operating the same, of an arm extending from the type-bar and presenting a pair of projections at opposite sides of the end of such arm, a pitman having a perforated end with a pair of bent lugs adapted to receive the said projections and prevent axial displacement of the end of the pitman rela-

tively to the arm while allowing a pivotal action of the pitman, means pivotally connecting the said end of the pitman to the said arm, a bell-crank-lever having the other end of the pitman pivotally connected to one end thereof, and means operatively connecting the opposite end of the bell-crank-lever to the key.

5. In a typewriting machine, the combination with a thrusting type-bar and a key for operating the same, of an arm extending from the type-bar and presenting a circular end with a pair of diametrically opposite radial projections, a pitman having a perforated end with a pair of bent lugs adapted to receive the said projections and prevent axial displacement of the end of the pitman relatively to the arm while allowing a pivotal action of the pitman, a stud mounted rigidly in the end of the arm and adapted to project into the perforation in the pitman, a bell-crank-lever having the other end of the pitman pivotally connected to one end thereof, and means operatively connecting the opposite end of the bell-crank-lever to the key.

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

CHARLES WESLEY DAVIS.

Witnesses:

WILLIAM P. McFEAT,
FRED J. SEARS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."