

(No Model.)

C. H. REDMAN, Jr.
TYPE WRITING MACHINE.

No. 466,309.

Patented Dec. 29, 1891.

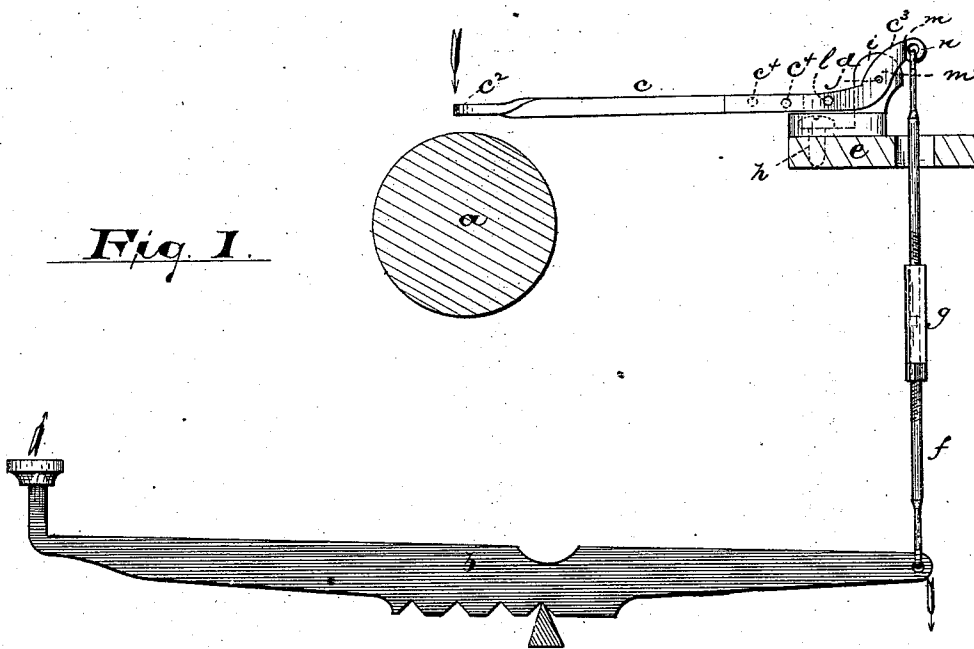


Fig. 1.

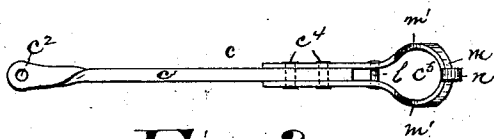


Fig. 2.

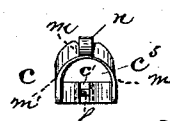


Fig. 3.

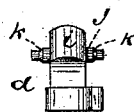


Fig. 4.

Witnesses

Inventor:

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By Franklin Atty's.

UNITED STATES PATENT OFFICE.

CHARLES H. REDMAN, JR., OF NEWARK, NEW JERSEY, ASSIGNOR TO C. H. REDMAN & CO., OF SAME PLACE.

TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 466,309, dated December 29, 1891.

Application filed August 6, 1891. Serial No. 401,850. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. REDMAN, Jr., a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Type-Writing Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of this invention is to secure a more durable and perfect adjustment of the type-operating parts of a type-writing machine, whereby a perfect alignment is maintained for a longer period without the necessity of resetting or adjusting the parts.

The invention consists in the improved type-operating mechanisms and in the peculiar arrangements and combinations of parts, substantially as will be hereinafter set forth, and finally embodied in the clauses of the claim.

Referring to the accompanying drawings, in which like letters indicate corresponding parts, Figure 1 is a side elevation of certain portions of the type-operating mechanisms, the relative position of the platen roll or cylinder being indicated by a section of said roll. Fig. 2 is a detail plan of a type-carrying lever. Fig. 3 is an end view of the same, and Fig. 4 is an end view of a fulcrum or bearing for said lever.

In said drawings, *a* indicates an ordinary paper roll or platen of a type-writing machine. *b* indicates an ordinary finger-key lever; *c*, a type-carrying lever; *d*, a fulcrum secured upon the frame *e* of the machine in any suitable manner, and *f* is a connecting-rod joining the finger-key lever and the type-carrying lever, the said connecting-rod being preferably in sections united by a nut *g*, by means of which latter the said rod may be lengthened or made short to secure any desired adjustment.

The fulcrum *d* is adjustably secured on the frame *e* by a set-screw *h* or other suitable

means, and is provided with a projecting head *i*, through which is passed a hardened-steel pivotal pin *j*, with conical bearings *k k* at the opposite extremities to receive the type-lever *c*. The type-lever consists of a rod *c'*, which is perforated, as at *c²*, or otherwise adapted to receive the type, and at the opposite extremity is provided with a metallic strap or piece bent into the form of a loop or eye and having its two ends secured by rivets or other means to said rod *c'*, as clearly shown in Fig. 2. The said loop is sufficiently enlarged to receive the head *i* and allow of a free pivotal movement of the lever, and because of the connecting portion *m* between the bearings *m'* for the pin *j* and forward or away from the rod *c'* the said bearings are prevented from spreading and allowing the conical bearings to loosen and occasion an irregular and uncertain movement of the type-carrier, as will be understood. The connecting portion *m* is provided with an eye *n*, formed, preferably, integral therewith to receive a hook of the connecting-rod *f*. By connecting the bearings of the loop, as at *m*, and thus preventing the same from spreading and the type-carrier from loosening and becoming irregular in its movements, the adjustment of parts is made more permanent and the type are continued in proper alignment for a longer period.

Having thus described the invention, what I claim as new is—

1. In a type-writing machine, the combination of a type-carrying lever bar or rod *c'*, having a loop at one end thereof, providing bearings for the fulcrum, and means *n* to receive the finger-key connections, said finger-key connections and a fulcrum-head working in said loop, all said parts being arranged and adapted to operate substantially as set forth.

2. In a type-writing machine, the combination of a finger-key lever, fulcrum *d*, and connecting-rod, and a type-lever having a loop providing bearings for said fulcrum, substantially as and for the purposes set forth.

3. In a type-writing machine, the combination of a type-carrying lever having a loop, a fulcrum in said loop, and means for operating said lever, substantially as set forth.

4. In a type-writing machine, the combination of the finger-key *b*, sectional connecting-rod *f*, nut *g*, adjustable fulcrum *d*, type-carrying rod *c*, and strap forming a loop, the ends
5 of which are secured to said rod and the loop or eye portion provide connected bearings for the fulcrum, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 30th day of July, 1891.

CHARLES H. REDMAN, JR.

Witnesses:

CHARLES H. PELL;
OSCAR A. MICHEL.