

E. F. GRIFFIN.
TYPE WRITING MACHINE.
APPLICATION FILED OCT. 2, 1907.

1,017,050.

Patented Feb. 13, 1912.

Fig. 1.

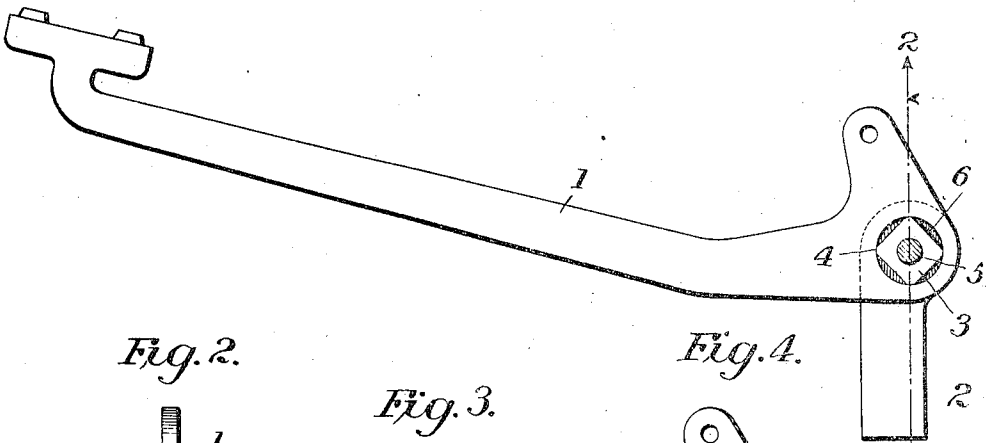


Fig. 2.

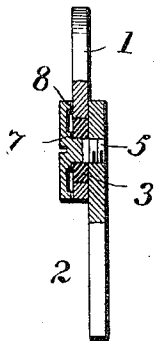


Fig. 3.

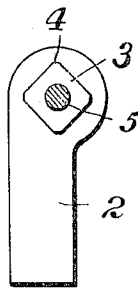


Fig. 4.

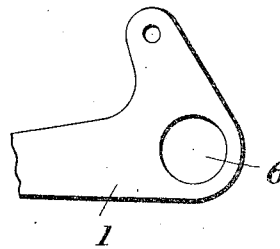


Fig. 5.

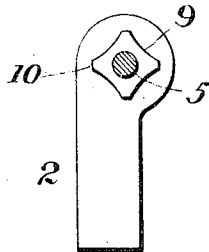


Fig. 7.

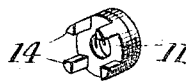


Fig. 6.

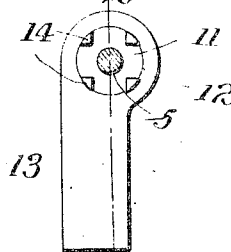
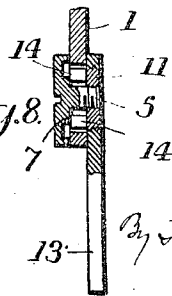


Fig. 8.



Witnesses
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UNITED STATES PATENT OFFICE.

EDWIN F. GRIFFIN, OF SCRANTON, PENNSYLVANIA, ASSIGNOR TO INTERNATIONAL TEXT BOOK COMPANY, OF SCRANTON, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

TYPE-WRITING MACHINE.

1,017,050.

Specification of Letters Patent.

Patented Feb. 13, 1912.

Application filed October 2, 1907. Serial No. 235,236.

To all whom it may concern:

Be it known that I, EDWIN F. GRIFFIN, a citizen of the United States, and resident of Scranton, Lackawanna county, State of Pennsylvania, have invented certain new and useful Improvements in Type-Writing Machines, of which the following is a specification.

The object of the present invention is to produce a type bar joint of strong and simple construction and which will permit the type bar to move with very little friction.

The invention will be described in connection with the accompanying drawing, in which,

Figure 7 is a side view of a type bar and hanger illustrating one form of the invention; Fig. 2 is a section on the line 2—2 of Fig. 1; Fig. 3 is a side view of the hanger shown in Fig. 1; Fig. 4 is a side view of a portion of the type bar; Figs. 5 and 6 illustrate different forms of the invention: Fig. 7 is a perspective view of the bearing shown in Fig. 6; Fig. 8 is a section on the line 8—8 of Fig. 6.

Referring to the drawing, 1 indicates a type bar and 2 a type bar hanger. The type bar illustrated is adapted for use in connection with a front strike typewriter, but my invention is adapted for use in any type of machine. The type bar bearing illustrated in Figs. 1 to 4 comprises a polygonal block 3 having its angles or corners rounded, as at 4, and having a central perforation through which a screw 5 passes to clamp the block to the hanger. The type bar 1 has a circular opening 6 in which the polygonal block 3 has a working fit. The screw 5 has an annular shoulder 7 which bears upon the block 3 and clamps it securely to the hanger and an annular flange 8 which bears lightly upon the type bar to hold it in place upon the bearing block 3 and prevent vibration.

When the parts are assembled, as shown in Fig. 2, the type bar is carried upon the rounded angles or corners of the bearing block 3 and it is guided by the face of the hanger and the flange 8 of the screw 5. A bar so mounted will be found to operate with a very little friction. The recesses between the wall of the eye 6 and the block 3 form receptacles for lubricant and the annular recess between the shoulder 7 and the

flange 8 of the screw may also be depended upon to carry a portion of lubricant.

The bearing block 3 may be of various forms, the chief feature being that it presents a plurality of rounded corners upon which the type bar is carried. In Fig. 5 the faces 9 of the block are concave but the corners 10 are rounded and present the same bearing surface to the type bar as the corners of the block 3.

In Figs. 6 and 7 I have shown another form of the invention. Referring to these figures, 11 indicates a round or cylindrical bearing block which is threaded and adapted to fit tightly in a threaded aperture 12 in the hanger 13. The block 11 is provided with a plurality of projections 14, the outer surfaces of which are round and adapted to fit the eye 6 of the type bar. As shown in Fig. 8 the type bar is mounted on the projections 14 and is held in place by a screw 5 having an annular flange 8 and a shoulder 7 similar to the screw illustrated in Fig. 2. The shoulder 7 bears upon the projections 14 and the flange 8 serves to hold the type bar on its bearing and guide it. The projections 14 correspond to the corners 4 of the polygonal block 3 and in the claims both forms of bearing will be referred to as having rounded corners or angles.

It will be noted that in each of the forms of the invention shown in the drawing a bearing member is detachably connected with the hanger. It is therefore possible to renew a worn out or defective bearing with a minimum of trouble and expense.

Having described my invention what I claim and desire to secure by Letters Patent is,

1. In a typewriting machine, the combination of a type bar hanger, a block connected with the hanger and having a plurality of integral rounded bearing surfaces spaced one from the other, a type bar having a circular eye in which said bearing surfaces have a working fit, and a screw connected with the hanger and having an annular flange for guiding said type bar.

2. In a typewriting machine, the combination with a hanger, of a polygonal bearing block having rounded corners, a screw connecting said bearing block with the hanger, and a type bar mounted on said

bearing block, the screw being adapted to hold said type bar in position upon its bearings and guide the same.

3. In a typewriting machine, the combination with a hanger, of a screw threaded into the hanger and having a shoulder 7 and an annular flange 8, a polygonal bearing block having rounded corners confined between the hanger and said shoulder 7, and a type bar pivotally carried on said bearing block and arranged between the type bar and said flange 8.

4. In a typewriting machine, the combination of a type bar hanger, a block upon the hanger having a plurality of rounded bearing surfaces, a type bar having a circular eye in which said bearing surfaces have a working fit, and means for detach-

ably connecting the block to the hanger, whereby it may be readily removed and replaced.

5. In a typewriting machine, the combination of a type bar hanger, a block upon the hanger having a plurality of rounded bearing surfaces, a type bar having a circular eye in which said bearing surfaces have a working fit, and a screw for detachably connecting the block to the hanger, the said screw being also constructed to retain and guide the type bar upon the bearing block.

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

EDWIN F. GRIFFIN.

Witnesses:

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