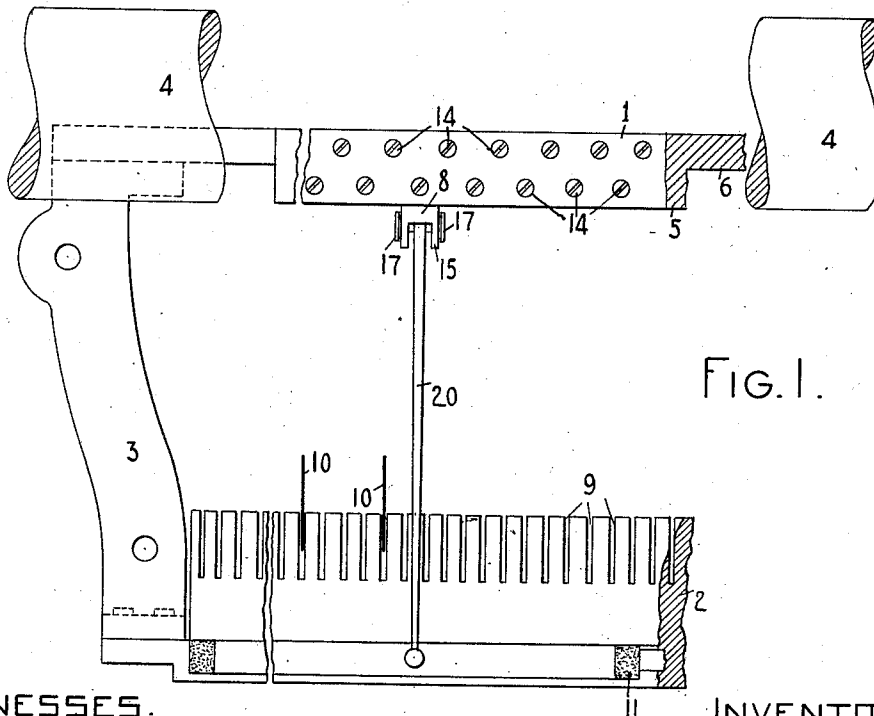
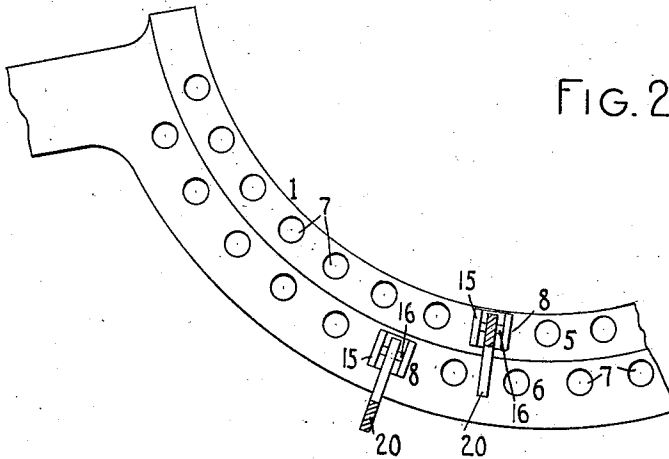


W. E. BURNETT.
TYPE WRITING MACHINE.
APPLICATION FILED SEPT. 14, 1907.

1,010,852.

Patented Dec. 5, 1911.

2 SHEETS—SHEET 1.



WITNESSES.

Wm. Wells
Charles Smith

INVENTOR:

William E. Burnett
By Jacob Felber
HIS ATTORNEY

W. E. BURNETT.
TYPE WRITING MACHINE.
APPLICATION FILED SEPT. 14, 1907.

1,010,852.

Patented Dec. 5, 1911.

2 SHEETS—SHEET 2.

FIG. 3.

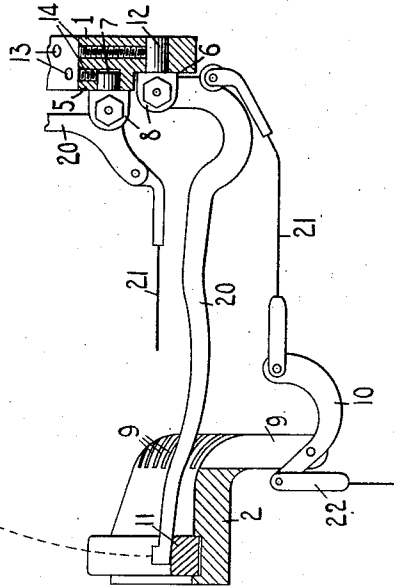
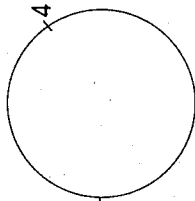


FIG. 4.

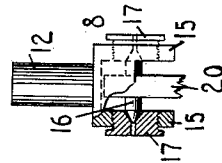


FIG. 5.

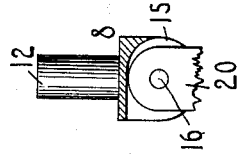


FIG. 6.

WITNESSES:

J. M. Wells

Charles Smith

INVENTOR:

William E. Burnett

By Jacob Selber

HIS ATTORNEY

UNITED STATES PATENT OFFICE.

WILLIAM E. BURNETT, OF ILION, NEW YORK, ASSIGNOR TO UNION TYPEWRITER COMPANY, OF JERSEY CITY, NEW JERSEY, A CORPORATION OF NEW JERSEY.

TYPE-WRITING MACHINE.

1,010,852.

Specification of Letters Patent.

Patented Dec. 5, 1911.

Application filed September 14, 1907. Serial No. 392,911.

To all whom it may concern:

Be it known that I, WILLIAM E. BURNETT, a citizen of the United States, residing at Ilion, in the county of Herkimer and State of New York, have invented certain new and useful Improvements in Type-Writing Machines, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to improvements in typewriting machines and more particularly to type bar and hanger constructions and the main object of my invention is to provide simple and efficient means for mounting the type bars and hangers and to provide efficient means whereby the type bar hangers may be readily adjusted.

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

In the accompanying drawings wherein like reference characters indicate corresponding parts in the various views, Figure 1 is a fragmentary top view of a portion of a typewriting machine showing a sufficient number of parts to illustrate my invention in its embodiment therein. Fig. 2 is a front view of a portion of the type bar segment with two of the type bars and hangers mounted in place therein. Fig. 3 is a fragmentary vertical sectional view showing two type bars and some of the associated parts. Fig. 4 is a fragmentary top view of a type bar and hanger with parts in section. Fig. 5 is a side view of the same with one of the hanger arms sectioned away. Fig. 6 is a detail front view of a hanger with a type bar mounted therein.

The vertically disposed type bar segment 1 opens upwardly and is preferably of stepped shape formed in cross section to provide two concentric vertically disposed segmental bearing faces 5 and 6 in different parallel vertical planes against which the type bar hangers are adapted to bear, the inner or upper face 5 extending forward of the lower or outer face 6. Each bearing face is drilled fore and aft of the machine

to provide cylindrical parallel, segmentally arranged openings or sockets 7 therein, two series of such openings being provided, one in each of the bearing faces of the segment, the openings of one series being staggered relatively to the openings of the other series. The openings of the upper series preferably extend only partway through the segment whereas the openings of the lower series preferably extend entirely through the segment. These openings are all parallel and are adapted to receive parallel cylindrical stems 12 of type bar hangers, each indicated as a whole by the reference numeral 8. Two series of radially disposed tapped openings 13 are provided in the segment, each of said openings extending down from the upper side of the segment and communicating with one of the openings 7. The tapped openings are adapted to receive screws 14 which bear at their inner or lower ends against the stems of the hangers to secure the hangers in their adjusted positions. From an inspection of Fig. 1 it will be seen that the screws 14 and the tapped openings 13 of one series are staggered with reference to the screws and openings of the other series. The arms 15 of each type bar hanger 8 are tapped to receive adjustable bearing nuts 17 each formed with a central recess to receive the coned end of a transverse pivot 16 of the associated type bar 20. The type bars are thus mounted in two sets and extend forwardly from their hangers where they are supported on a pad 11 which rests upon a segmental support 2 carried by arms 3. The segmentally arranged type bars are, in the present instance, adapted to strike upwardly and rearwardly against the front face of the platen 4. For the purpose of my present invention any suitable means may be employed for actuating the type bars. In the present instance I have shown the type bars connected to pull links 21 which in turn are connected to sub-levers 10 pivoted in slots 9 in the segmental support 2. The forward end of each lever 10 is connected to a depending link 22 which is suitably connected to a key lever (not shown).

It should be understood that the stud, shank or stem 12 of each hanger is adapted

to turn in its bearing openings 7 in the segment in order to effect an adjustment of the hanger and type bar carried thereby. The axis around which the hanger is adapted to be turned or adjusted extends at right angles to and intersects the axis on which the associated type bar turns. Moreover, it will be understood that the axis around which each hanger is adapted to be adjusted extends at substantially right angles to the general length of the type bar when the latter is in the printing position. The type bar and hanger may be swung or adjusted around said axis and the type may be shifted along the face of the platen in order to aline said type but the plane of movement of the printing face of the type will not be varied with reference to the impact face on the platen. The adjustment of the hanger may be effected therefore without throwing the type "off its feet"; that is to say, without varying the plane of the printing face with reference to a vertical transverse plane extending through the impact face of the platen. Moreover, this construction is such that no displacement of the hangers in their bearings can be effected radially of the printing point or in the general direction of the length of the bar even though the hanger be free to be adjusted around its pivotal axis on the segment. A slight adjustment of the types lengthwise of the bar for the purpose of alinement may be effected to a nicety in the usual manner by lengthening or shortening the bar where any such adjustment is necessary.

It will be seen that by my present invention I have provided a construction in which the hangers are rigidly mounted against radial displacement and yet at the same time the hangers may be readily adjusted to effect a proper positioning of the type with reference to the printing point, and laterally thereof, by simply swinging each hanger around the pivotal axis on which it may be adjusted, and that the adjustment of the hanger thus effected does not vary or disturb its radial position. It will also be seen that by this construction I provide a heavy and rigid hanger construction which has an ample support in the segment to firmly hold it without liability of radial displacement; and that nevertheless a large number of type bars and hangers may be assembled in the comparatively small space available in the segment of a front-strike machine.

By providing for adjustment of the type bar hangers in the manner shown and described, I am enabled to provide against the liability of any accidental variation being effected in the distance between the printing point and the pivot of the type bar, at the same time affording a ready adjustment of the parts for purposes of alinement without

throwing the type off their feet or changing the plane of the printing face of the type with reference to the impact face on the platen, or a plane tangent thereto.

It should be observed that the position of the screws 14 is such that access may be readily had thereto from the front of the machine to facilitate an adjustment of the hangers.

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

1. In a front-strike typewriting machine, in combination, a type-bar segment having upper and lower adjacent parallel segmental faces, the upper face arranged in a plane in advance of the plane of the lower face, two series of type-bar hangers arranged along said faces, respectively, and carrying type-bars each mounted on a transverse axis, means whereby all of said hangers are independently rotatably adjustable on parallel axes, the line of adjustment of each hanger intersecting the axis of its type-bar at substantially right angles, and series of means for independently locking the hangers in adjustment, said several means being operative along the top edge of said segment.

2. In a typewriting machine, the combination, a type-bar segment having upper and lower segmental front faces, the upper front face arranged in a plane in advance of the lower front face, two series of type-bar hangers arranged along said faces, respectively, and carrying type-bars each mounted on a transverse axis, each hanger having an approximately horizontal stud rotatably mounted in said segment on an axis intersecting its type-bar axis substantially at right angles, and two series of hanger locking set screws in said segment and corresponding to said series of hangers, substantially as described.

3. In a typewriting machine, in combination, a type-bar frame having a vertically disposed segmental series of parallel horizontally disposed sockets and a series of tapped holes intersecting said sockets, respectively, hanger-locking set-screws in said holes, and type-bar hangers carrying type-bars each mounted on a transverse axis, said hangers having studs rotatably adjustable in said sockets on parallel lines, the independent line of adjustment of each hanger intersecting the axis of its type-bar at substantially right angles.

4. In a front-strike typewriting machine, in combination, a multiplicity of adjacent type-bars each having a type, a vertically disposed type-bar segment provided with two concentric series of parallel approximately horizontal sockets and corresponding tapped holes opening through the segment top and each at its lower end opening into

a socket, set screws in said holes, two series of adjacent type-bar hangers arranged at the vertical front face of said segment, each type-bar being fulcrumed to its hanger to swing on a transverse axis, each hanger having a stud rotatably adjustable in a socket on an approximately horizontal axis intersecting the axis of the associated type bar at approximately right angles, the studs of

all the hangers being parallel and held in 10 adjusted position by said set screws.

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

WILLIAM E. BURNETT.

Witnesses:

WILLIAM F. PARKER,
DONALD B. GOOLD.

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