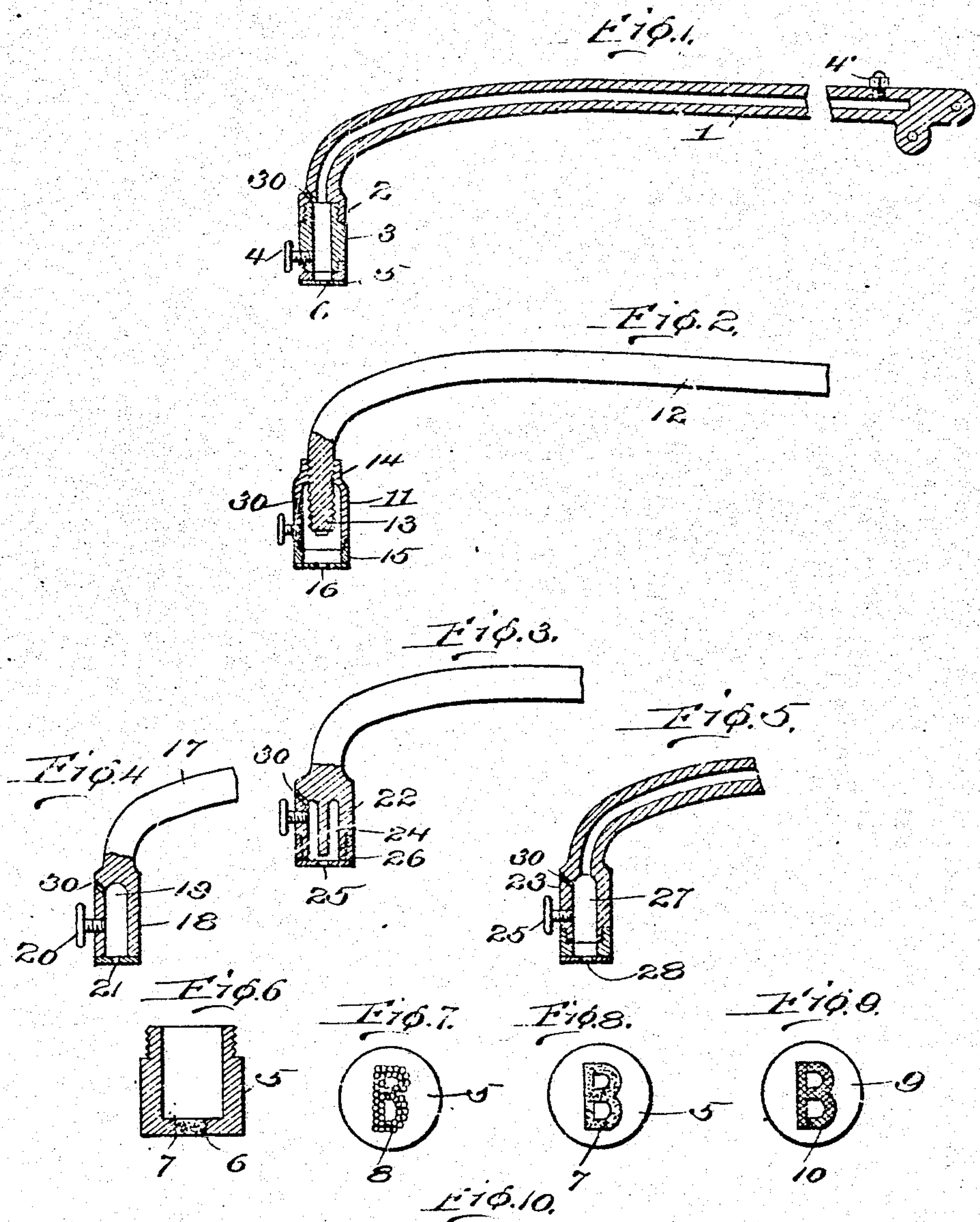


E. A. BEARD.
 INKING ATTACHMENT FOR TYPE WRITERS.
 APPLICATION FILED MAR. 5, 1908.

970,295.

Patented Sept. 13, 1910.

2 SHEETS-SHEET 1.



Witnesses

J. M. Fowler
 W. L. Kitchin

Inventor

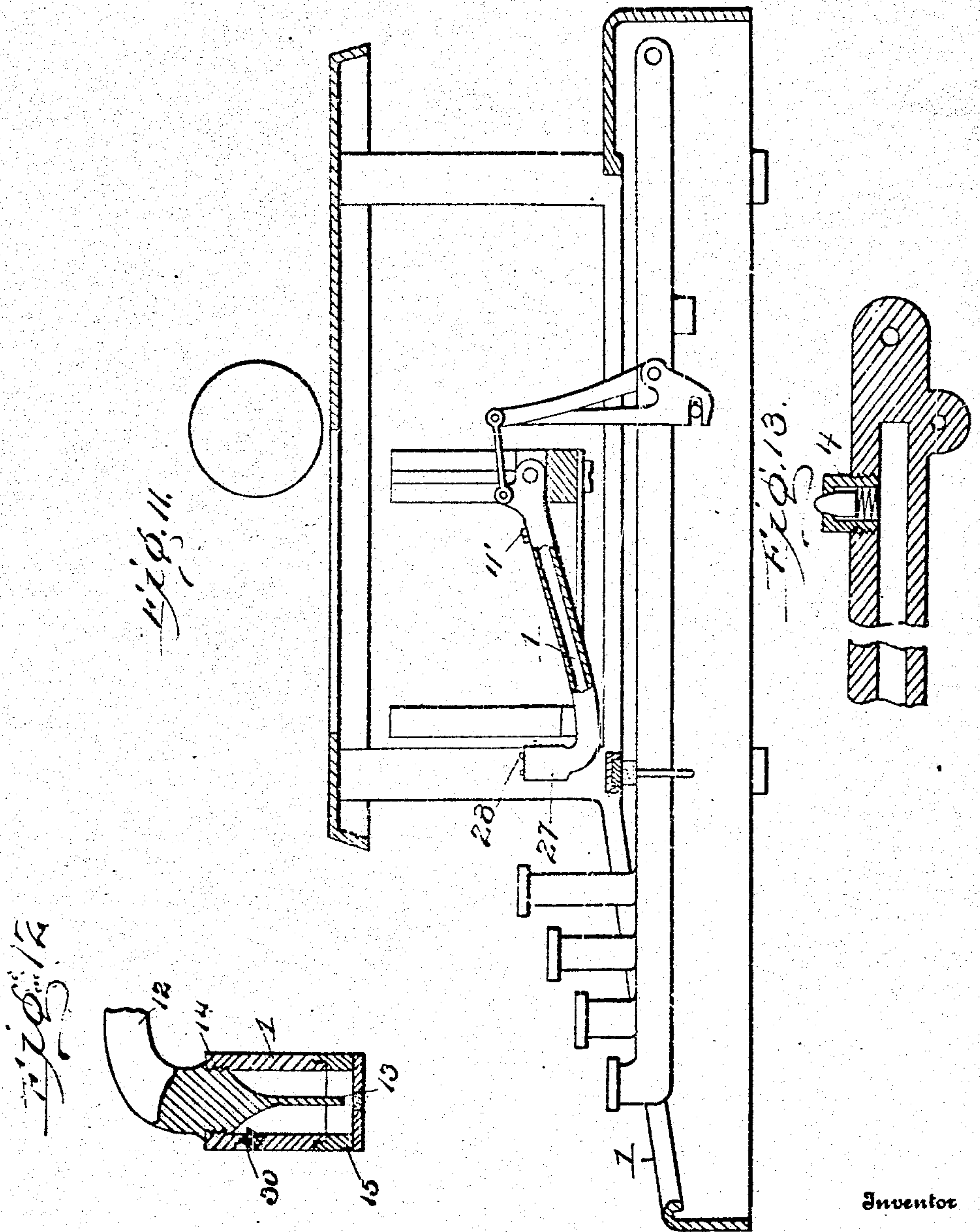
Edward A. Beard
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UNITED STATES PATENT OFFICE.

EDWARD ABBOT BEARD, OF ROCKVILLE, MARYLAND.

INKING ATTACHMENT FOR TYPE-WRITERS.

970,295.

Specification of Letters Patent. Patented Sept. 13, 1910.

Application filed March 5, 1908. Serial No. 419,351.

To all whom it may concern:

Be it known that I, EDWARD ABBOT BEARD, a citizen of the United States, residing at Rockville, in the county of Montgomery and State of Maryland, have invented certain new and useful Improvements in Inking Attachments for Type-Writers; 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.

This invention relates to improvements in attachments for typewriters, and particularly to inking attachments, and has for an object the provision of an inking attachment that carries a distinct supply of ink for each type bar of the typewriter; for the purpose of producing writing of a permanent and lasting character.

Another object in view is the provision of an attachment for typewriters that is removably secured to the type bars of the typewriter and arranged to have type secured thereto for printing with ink.

A further object in view is the provision of an attachment that may be secured to an ordinary typewriter for forming an ink well and having secured to the ink well a type adapted to print with ink.

A still further object in view is the provision of an attachment to the type bars of a typewriter that forms an inking receptacle and in addition a removable type through which the ink in the ink well may flow when the type is brought in its operative movement against the paper disposed upon the platen in the typewriter.

With these and other objects in view the invention comprises certain novel constructions, combinations, and arrangement of parts as will be hereinafter more fully described and claimed.

In the accompanying drawings: Figure 1 is a fragmentary view of a type bar of a typewriter arranged with the present invention secured thereto, the same being shown in section. Fig. 2 is a slightly modified form of the invention, the same being designed to be attached to the ordinary type bar. Fig. 3 is a further modified form of the structure shown in Fig. 1, the same being shown as made integral with the type bar and having a removable type. Fig. 4 is a still further modification of the invention. Fig. 5 is another modification of the invention showing

an ink receptacle made integral with a type bar and having a type removably secured thereto. Fig. 6 is a section through a type formed according to the present invention. Fig. 7 is a bottom plan view of a slightly modified form of type. Fig. 8 is a bottom plan view of the type shown in Fig. 6. Fig. 9 is a bottom plan view of a slightly modified form of type in which cloth or fiber is used to permit the ink to feed automatically to the face of the type with each impact of the type against the platen. Fig. 10 is a fragmentary view of a type bar of a typewriter having secured thereto a removable type formed according to the present invention, the same having several configurations formed therein. Fig. 11 is a section through a typewriter having a key and bar formed according to the present invention mounted thereon, part of the bar being broken away. Fig. 12 is a slightly modified form of the invention showing a depending feeding member. Fig. 13 is an enlarged fragmentary sectional view through one end of a hollow type bar showing a valve secured thereto.

In constructing an attachment according to the present invention the same may be arranged on any typewriter, already on the market, but preferably it is arranged on typewriters in which the types move downwardly on a pivot for striking the platen. Preferably the type bars 1 are made of a special construction and have threaded sockets 2 for receiving a sleeve 3 which acts as a chamber or receptacle for ink. Provided in sleeve or receptacle 3 is a thumb screw 4 that is designed to fill the aperture through which ink may be fed into the receptacle for filling if desired. Preferably also the bar 1 is made hollow, as clearly seen in Figs. 1, 5 and 11 and is provided with a valve 4' near the end opposite the type. By this arrangement when it is desired to fill the receptacle 3 the plunger of the valve 4' may be depressed and ink forced through the valve into the bar 1, and when the same is positioned, as shown in Fig. 11, ink will flow down into the receptacle and supply the printing face of the type thereof. Any of the bars may be provided with a passage way extending the full length of the bar regardless of the kind of receptacle or type positioned at the end thereof. This structure is of considerable importance as the valve 4' permits the supply of ink to the receptacle readily and with little accen-

venience, as the ink may be inserted into the receptacle by the use of an oil can the nose of the can being used to depress the plunger of the valve for permitting ink to flow from the can through the valve to the opening or hollowed out part of the bar, and from thence to the receptacle 3. The providing of the hollowed out portion or passage way in the bar also increases the capacity of the receptacle. The valve 4' is positioned at any desired point along the bar, preferably at one of the highest points of the same when the bar is at rest as seen in Fig. 11 so that the ink will have a tendency to flow toward the type by gravity.

Secured to the sleeve or receptacle 3 is a type holding member 5 that has formed therein an opening 6 the shape of the type or other configuration. The type aperture 6 is filled with a porous material 7 of any desired kind preferably of some cloth, or linen mesh, porous stone, or drain tile, or any combination of the same that will permit ink to flow therethrough and feed automatically on to the outer surface thereof with each impact of the type against the platen. If desired the member 5 may be formed with a plurality of apertures 8 that form a letter or other configuration. The apertures 8 are comparatively small so that the ink will feed through the same and automatically feed on to the outer surface thereof with each impact of the type against the platen.

In Fig. 9 will be seen a slightly modified form of type receiving or forming member 9 which is arranged with a type or other configuration of any desired kind and having positioned in the type a filling of cloth fiber or the like 10 that will permit ink to flow therethrough sufficiently to cause an imprint on the paper by the typewriter. In forming the type in the type member 9 and also in the member 5 an aperture is cut entirely through the various members in the shape of the type and then the aperture filled in with various material as heretofore set forth.

In Fig. 2 will be seen a slightly modified form of the present invention in which a cylinder or receptacle 11 is secured to a type bar 12. The type bar 12 is formed with a type 13 in any desired manner. The cylinder or receptacle 11 is designed to surround the type 13 and to be secured by threads at 14 to the type bar 12. The threading of the type bar 12 at 14 is the only change to be made on the type bar so that the attachment when formed according to Fig. 2 may be used upon typewriters already on the market provided there is sufficient space between the respective bars for accommodating receptacle 11. Threaded upon the receptacle or sleeve 11 is a type member 15 similar to the type member 5.

In threading the type bar 12 at 14 the same is so threaded as to cause the lower part of the type 13 to come in proximity to the type 16 formed in the member 15 so that an ink feed is provided for the type 16. This will insure the inking of the type 16.

In Fig. 4 will be seen another slightly modified form of the invention in which a type bar 17 is provided with an enlarged portion 18 that is formed with an opening or chamber 19 into which ink is fed through an opening filled with thumb screw 20. Upon the end of the enlarged portion 18 is formed a type or opening 21 which is designed to feed ink from chamber 19 when the bar is in use.

In Figs. 3 and 5 will be seen other slightly modified forms of the invention in which enlarged portions 22 and 23 respectively are formed. In Fig. 3 a central depending lug or member 24 is provided for forming an ink feed to the type 25. The type 25 is preferably formed in a type member 26 that is removably secured to enlarged portion 22. In Fig. 5 there is no depending feed as 24, but simply an opening 27 for receiving ink to be fed to type 28. In supplying the openings or ink receiving portions ink may be supplied through openings filled by thumb screw 29, or the ink may be placed in the opening as 27 by removing the member in which type 28 is formed.

In connection with the receptacles used in the various forms of the present invention I provide a valve 30 of any desired construction which will permit air to enter into the receptacle to destroy any vacuum formed therein, but will not permit any air or other matter to escape from the receptacles. Preferably the valve 30 is used upon all the forms of the invention, and may be positioned at any desired point.

The attachment forming the present invention is arranged to be operated in the usual manner of typewriters which may be provided with special bars for accommodating the enlarged portions of the bars, or may be secured to the type bars of the typewriters already on the market where there is sufficient space between the type bars. The movement of the type bars in moving the type back and forth will cause movement of the ink in the receptacle and consequently keeps the type well supplied with ink for an impression whenever desired. The type members may be removed and replaced as often as desired, either for removal because of wear or for repairs of various kinds. When the form shown in Fig. 2 is used the member 15 may be removed and the device used as an ordinary typewriter bar or the entire attachment, including members 15 and 11, removed, and the device then used as an ordinary typewriter bar. This form is of particular importance as the same sets

forth the advantages of the attachment and yet provides a structure in which the ordinary type may be used as such.

What I claim is:

1. In a typewriting machine provided with a type bar, the combination of an ink receptacle formed with a type on one end for distributing ink therefrom, said ink receptacle being threaded to said type bar.
2. In a typewriting machine provided with a type bar, the combination of an ink-containing sleeve removably secured thereto, a type member threaded to said sleeve, said sleeve being adapted to supply said type with ink.
3. In a typewriting machine provided with type bars, the combination of a receptacle for receiving ink threaded to the type bars, and surrounding one end thereof, a type threaded to said receptacle, and means for causing the ink to flow through said type.
4. In a typewriting machine provided with type bars, the combination of a receptacle for receiving ink removably secured to said type bars, a type threaded on said receptacle, and means for feeding ink into proximity to said type.
5. In a typewriting machine provided with a type bar, the combination of an ink-containing receptacle threaded to said type bars, type secured to said receptacle, and a depending portion extending from said type bar for feeding ink into proximity to said type.
6. In a typewriting machine, the combination of a type bar formed with an enlarged hollow end for containing ink, and an ink using type threaded to said hollow end.
7. In a typewriting machine provided with type bars having type members thereon, the combination of an ink receptacle threaded to each of said bars, and a porous material fitted into said type member and forming the type of said type member, said ink passing through said porous material during the typewriting operation.
8. In a typewriting machine provided with type bars, the combination of an ink receptacle secured to each of said type bars,

a type member secured to each of said receptacles, and a clay filling secured to said type member for forming the type or configuration, said filling being of such consistency as to permit the ink in said receptacle to percolate therethrough.

9. In a typewriting machine provided with type bars, the combination of an ink-containing receptacle removably secured to each of said type bars, a type member removably secured to said receptacle, porous clay secured to said type member and forming the type thereof, and means of feeding ink from the receptacle into proximity to said porous clay for continuously keeping the same impregnated with ink.

10. In a typewriting machine, the combination of an ink receptacle formed integral with the type bar of said machine, a type member threaded on said receptacle, porous material fitting into one end of said type member and forming the type thereof, and an extension of said type bar for feeding ink from the receptacle into proximity to said porous material for continuously keeping the same impregnated with ink.

11. In a typewriter, a type bar provided with an aperture passing therethrough longitudinally for receiving ink, a valve for communicating with said passage way for permitting ink to be inserted in said passage way, an ink using type secured to the end of said type bar for printing with the ink contained in said passage way.

12. In a typewriter, a type bar therefor arranged with a passage way extending longitudinally therethrough, means for permitting ink to be inserted into said passage way at the pivotal end of said type bar, a removable type secured to the other end of said type bar, and in uninterrupted communication with said passage way for using ink therefrom.

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

EDWARD ABBOT BEARD.

Witnesses:

JOHN L. FLETCHER,
A. L. KITCHIN.