May 18, 1954 C. W. BRUGER 2,678,647

HYPODERMIC SYRINGE ADAPTER

Filed Aug. 21, 1952

Fig. 1.

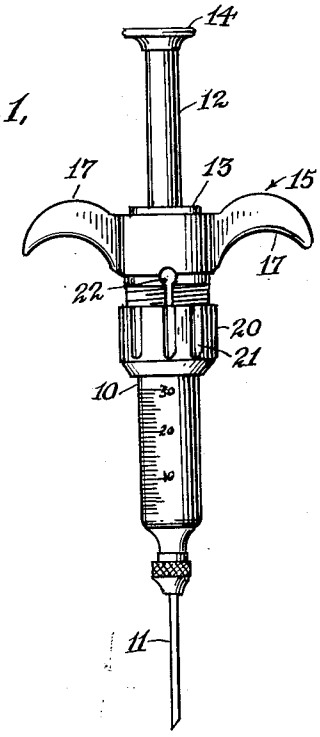
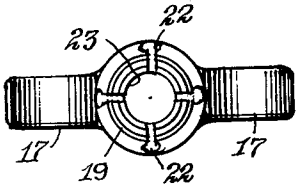


Fig. 4.



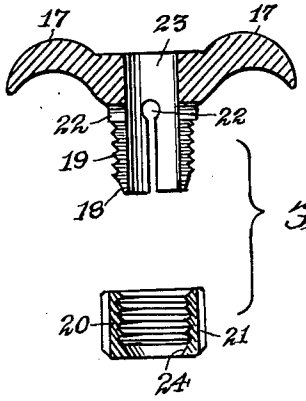


Fig. 5.

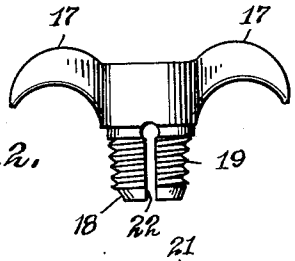


Fig. 2.

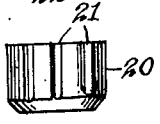


Fig. 3.

INVENTOR

Charles W. Bruger

BY

John H. Glaccum

ATTORNEY

Patented May 18, 1954 2,678,647

UNITED STATES PATENT OFFICE

2,678,647

HYPODERMIC SYRINGE ADAPTER

Charles W. Bruger, Union City, N. J.

Application August 21, 1952, Serial No. 305,540

2 Claims. (Cl. 128—218)

1

This invention relates to an adapter for syringes and particularly for medicinal syringes of the type in common use. One of the most popular and generally used present day syringes comprises the usual cylinder or medicine container having an adaptable needle at the end and a plunger. These syringes usually have a slight flange in the top but are generally cylindrical in shape and at times are inclined to be slippery and difficult to handle. They have a further disadvantage in letting certain types of medicine, such as penicillin suspension, if a slight delay occurs, congeal very quickly in the needle, thus clogging the needle and requiring a resterilization and another injection. Such a delay may be caused by the slippage of the fingers on the syringe which will cause uneven and jerky administration.

An object of this invention is to provide an adapter which will be of light weight and which will be capable of accommodating syringes of varying sizes but which, at the same time, will provide the administering physician with a comfortable and sure grip of the syringe.

A further object is to provide an adapter which may be placed on the conventional syringe with a minimum of effort and which may readily be removed therefrom.

A still further object is to provide a selective adapter which will be less fatiguing to use but which will be sure in its application and will thus avoid the possibility of delay with resulting clogging and the necessity of reapplication.

Further objects and advantages of my invention become apparent from the following description and accompanying drawings, in which—

Fig. 1 is a perspective view of my adapter applied to a conventional syringe cylinder or medicament container.

Fig. 2 is a detailed view of the finger grip portion of my adapter.

Fig. 3 is a detailed view of the fastening element.

Fig. 4 is a bottom plan view of the elements shown in Fig. 2.

Fig. 5 is a cross-sectional view of the adapter separated.

Referring more particularly to the drawings, the conventional syringe 10 is provided with a standard needle 11, a plunger 12 which passes through the flange portion 13 and which is provided with a thumb button 14. My adapter 15 is relatively simple and economical in structure and consists basically of two parts, first, a finger grip portion having a depending thread and slotted shank, and, secondly, a fastening element consisting of a threaded nut which engages the threaded shank.

2

Referring more particularly to the drawings the member 15 is provided with a pair of finger holds or grips 17 which are curved on the underside 16 to engage the first and second fingers of a hand. The finger grip portion is provided with a bore through which the syringe may be inserted. It is also provided with a threaded shank 19 which in turn has a plurality of slots 22 and a bevelled lower portion 18.

The threaded nut 20 is adapted to engage the shank 19 and the threads thereon and is bevelled on the inside at 24 to engage the bevel 18 on the shank and to cause the shank to contract and firmly grip the syringe 10. The nut 20 is provided with grooves 21 or finger grips to facilitate its use.

The slots 22 in addition to allowing the constriction of the shank 19 also provide full vision when the syringe is completely filled hence the administrator can determine the amount of liquid therein.

In operation the nut 20 is normally left upon the shank 19 but is screwed downwardly to ease the pressure on the shank. When the device is to be used the conventional syringe may be inserted very quickly through the bore 23 and the nut 20 tightened to provide a firm grip. When the syringe is empty or to be resterilized it can be readily removed from the adapter by loosening the nut 20.

It will be appreciated that in view of the flexibility caused by the slots 22, which are preferably four in number, variances in tensions of the syringe 10 are readily absorbed and a one-size adapter may handle several sizes of syringes.

While I prefer to manufacture my adapter out of a relatively light material it might just as well be made of plastic, hard rubber or any other suitable material.

I claim:

1. A syringe adapting unit comprising a member having a pair of finger grips, a depending shank, a syringe receiving bore extending through said member and said shank, external threads on said shank and a bevelled edge on the end of said shank, a tightening element comprising an internally threaded unit having a bevelled portion to engage the bevelled portion of said shank and to press the interior of said shank against a syringe body in said bore.

2. A syringe adapting unit comprising a member having a pair of laterally extending finger-

grips, a depending shank, a bore extending through said member and said shank receiving an independent syringe unit, said shank being provided with a plurality of slots and terminating in a bevelled edge, external threads on said shank, a tightening element comprising an internally threaded unit having a bevelled portion engaging the bevelled portion of said shank to press the interior of said shank against a syringe in said bore.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
753,241	Davidson	Mar. 1, 1904
786,697	Wackenhuth	Apr. 1, 1905
1,456,717	Smith et al.	May 29, 1923

FOREIGN PATENTS

Number	Country	Date
571,601	Germany	Mar. 2, 1933