

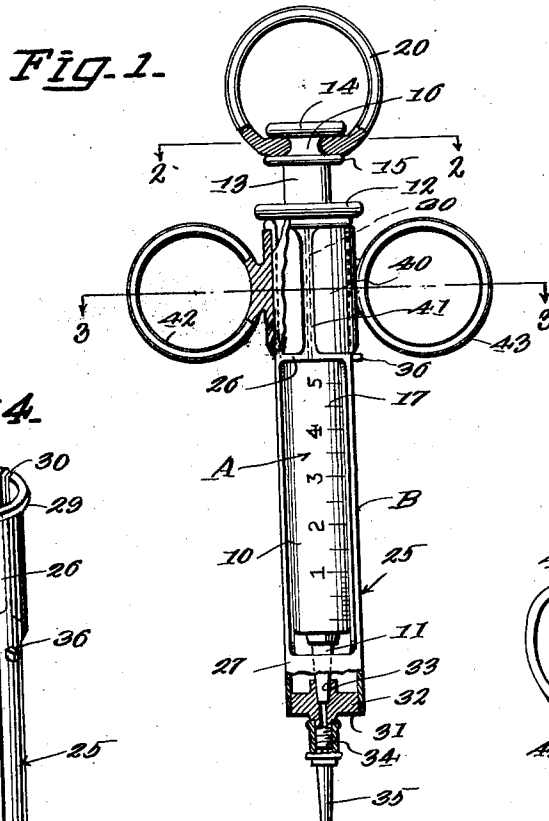
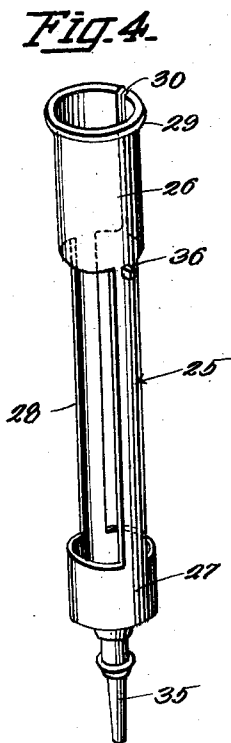
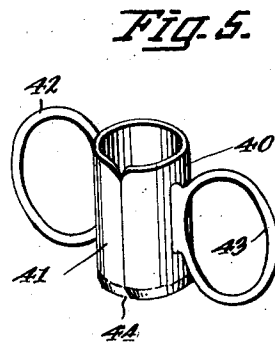
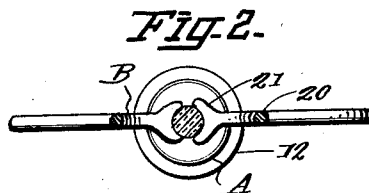
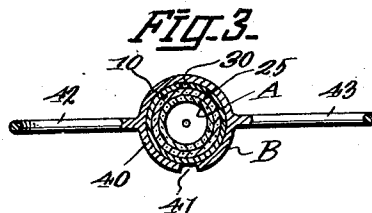
Nov. 17, 1931.

L. E. CREASY

1,832,533

SYRINGE

Filed Jan. 28, 1931



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SYRINGE

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This invention appertains to syringes to be used in the medical profession, and more particularly to a novel attachment or fixture for use in connection with syringes, particularly of the Luer type.

One of the primary objects of my invention is the provision of a novel attachment for use in connection with glass syringes of the Luer type, so constructed as to give greater ease in operating the syringe, and at the same time effectively brace and protect the syringe so as to eliminate all possibility of the syringe breaking while in use, the attachment assuring longevity to the syringe.

Another prime object of my invention is the provision of a novel jacket or frame for receiving the barrel of the syringe, with novel means for contracting the jacket or frame about the barrel so as to eliminate the disengagement of the jacket or frame from the barrel, said means carrying a finger ring for facilitating the use of the syringe, the jacket forming an effective means for bracing and protecting the syringe barrel.

A further salient object of my invention is the provision of a novel thumb ring for detachable connection with the head of the plunger of the syringe, so as to facilitate the operation of the plunger, the thumb ring acting in connection with the finger ring to permit a firm grip to be had on the syringe.

A further object of my invention is the provision of novel means formed on the jacket for receiving the nipple end of the barrel and novel means on the jacket or frame for receiving a slip fixture for the Luer type of syringe.

A still further object of my invention is to provide a novel attachment for glass syringes of the above character, which will be durable and efficient in use, one that will be simple and easy to manufacture, and one which can be placed upon the market and incorporated with a conventional glass syringe at a very low cost.

With these and other objects in view, the invention consists in the novel construction, arrangement and formation of parts, as will be hereinafter more specifically described,

and illustrated in the accompanying drawings, in which drawings:—

Figure 1 is a side elevation of a syringe showing my improved fixture incorporated therewith, parts of the same being shown broken away and in section to illustrate the construction thereof.

Figure 2 is a detail horizontal section taken on the line 2—2 of Figure 1 looking in the direction of the arrows.

Figure 3 is a similar section taken on the line 3—3 of Figure 1 looking in the direction of the arrows.

Figure 4 is a detail perspective view of the frame or jacket for the barrel of the syringe.

Figure 5 is a detail perspective view of the resilient split clamping ring for the barrel frame, showing the finger rings carried thereby.

Referring to the drawings in detail, wherein similar reference characters designate corresponding parts throughout the several views, the letter A generally indicates a syringe and B my improved attachment therefor.

The syringe A is of the glass, and preferably of, the Luer type and embodies the glass barrel 10, having the tapered nipple 11 at one end thereof. The opposite end of the barrel is left open and can be provided with an annular bead 12. Reciprocally mounted within the barrel 10 is the glass plunger 13, having formed on its outer end the head and thumb rest 14. In spaced relation to the thumb or head rest 14 is an annular bead 15, defining a substantially annular channel 16.

The nipple 11 is employed for receiving the slip type of needle.

My improved attachment B for the syringe A comprises first, a resilient split thumb ring 20 having the arcuate ears 21 formed on the inner split end of the thumb ring. The ring is adapted to be flexed or expanded, so that the ears 21 can be sprung into the channel 16 for effectively gripping the plunger. This ring is of an adequate size to permit the full insertion of the thumb within the ring so that the thumb can rest directly on the thumb seat and thereby allow force to be applied direct, as if no ring was present. The thumb allows the operation of the syringe with one

hand, in that the plunger can be readily withdrawn from the barrel.

In conjunction with the barrel 10 I employ a novel jacket or protecting frame, which is preferably formed from spring steel. This jacket 25 includes end collar or bands 26 and 27, connected together by longitudinally extending diametrically opposed straps 28. The upper collar or band 26 at its upper end is preferably flared or provided with a stop bead 29, for a purpose which will be later set forth. It is to be also noted that this upper band 26 is split longitudinally as at 30 and that the split extends from one end of the band to the other to permit the contraction thereof about the barrel as will be also later set forth. The lower end of the jacket or frame 25 is closed by a wall 31 having an axial bore 32 and a socket 33 communicating with the bore for the reception of the barrel nipple 11. This wall 31 carries a threaded nipple 34 for receiving a slip type fixture 35 for syringes of the Luer type. The jacket or frame 25 adjacent to the upper band 26 is provided with a lock lug 36, which will also be hereinafter more fully described.

The jacket 25 is slipped over the forward end of the barrel until the skirt or bead 29 abuts the bead 12 on the barrel at which time the nipple 11 will be snugly seated within the socket 33.

In connection with the frame or jacket I employ a resilient split ring or band 40 having secured to the opposite sides thereof on each side of the split 41, finger rings 42 and 43. The corners of the band or ring 40 at the split portion thereof are preferably cut away as at 44 to provide wide entrance mouths to the split.

After the jacket or frame has been slipped on the barrel, the resilient ring 40 is slipped thereon from the front or forward end thereof and pushed back on the frame toward the rear end thereof. The lug 36 is pushed through the split portion 41 of the ring 40 and when the resilient band 40 rides past the lug 36 the same is turned so as to move the split portion from out of alignment with the lug. This locks the resilient band on the barrel and the outer end of the band engages against the flared end or bead 29 of the jacket. The inherent resiliency of the split locking band 40 contracts the split jacket about the barrel and thus firmly holds the jacket or frame on the barrel.

The spaces on the opposite sides of the jacket or frame intermediate the strap 28 provide elongated sight openings whereby the graduations 17 on the barrel can be readily read and the contents of the barrel readily seen.

It is obvious that the finger rings 42 and 43 and the thumb ring 20 allows easy manipulation of the syringe and that the jacket

forms a protection for the barrel and prevents easy breakage of the barrel while in use.

The attachment adds longevity to the barrel and the device is so constructed as to permit replacement to be readily made.

The upper band 26 can be made slightly smaller in diameter at its ends. The split clamping ring 40 also preferably has its inner end slightly contracted.

Changes in details may be made without departing from the spirit or the scope of this invention, but:—

What I claim as new is:

1. The combination with a syringe including a barrel having a nipple at one end and a bead at its opposite end, and a plunger reciprocally mounted within the barrel, of an attachment for the syringe embodying a protecting jacket including inner and outer bands connected together by longitudinally extending spaced straps, the outer band being split longitudinally and provided with an annular flange for engaging the bead on the barrel, an outer wall carried by the jacket having an axial way and a socket for receiving the barrel nipple, a split resilient clamping ring movable longitudinally on the jacket for contracting the split band of the jacket about the barrel, and a radially extending lug on the jacket in spaced relation to the flange for confining the split clamping ring between the flange and lug.

2. The combination with a syringe including a barrel having a nipple at one end and a bead at its opposite end, a plunger reciprocally mounted within the barrel, of an attachment for the syringe embodying a protecting jacket including inner and outer bands connected together by longitudinally extending spaced straps, the outer band being split longitudinally and provided with an annular flange for engaging the bead on the barrel, an outer wall carried by the jacket having an axial way and a socket for receiving the barrel nipple, a split resilient clamping ring movable longitudinally on the jacket for contracting the split band of the jacket about the barrel, a radially extending lug on the jacket in spaced relation to the flange for confining the split clamping ring between the flange and lug, and oppositely extending finger rings formed on the split clamping band.

3. The combination with a syringe including a barrel having a nipple at one end and a bead at its opposite end, a plunger reciprocally mounted within the barrel, of an attachment for the syringe embodying a protecting jacket including inner and outer bands connected together by longitudinally extending spaced straps, the outer band being split longitudinally and provided with an annular flange for engaging the bead on the barrel, an outer wall carried by the jacket having an axial way and a socket for receiving the barrel nipple, a split resilient clamp-

ing ring movable longitudinally on the jacket
for contracting the split band of the jacket
about the barrel, a radially extending lug on
the jacket in spaced relation to the flange for
5 confining the split clamping ring between
the flange and lug, oppositely extending fin-
ger rings formed on the split clamping band,
and a thumb ring detachably connected with
the outer end of the plunger.

10 In testimony whereof I affix my signature.
LEURNER E. CREASY.

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