

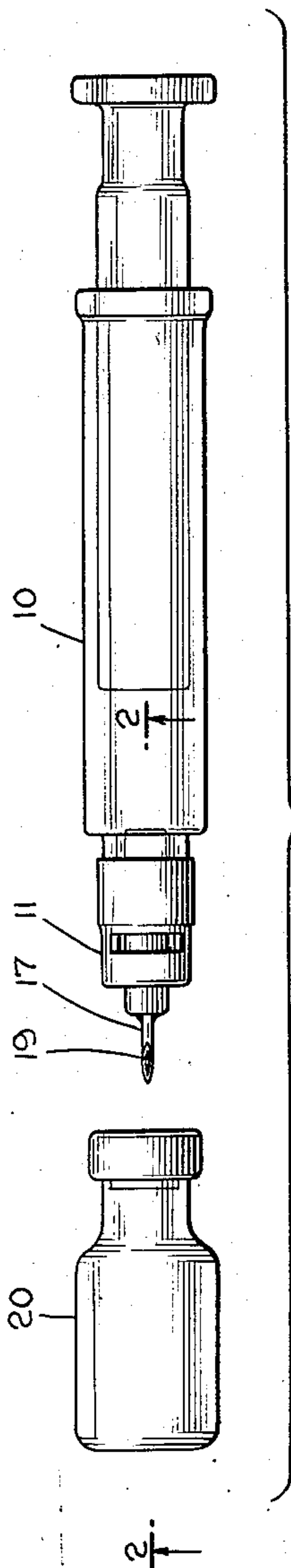
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**D. GABRIEL**

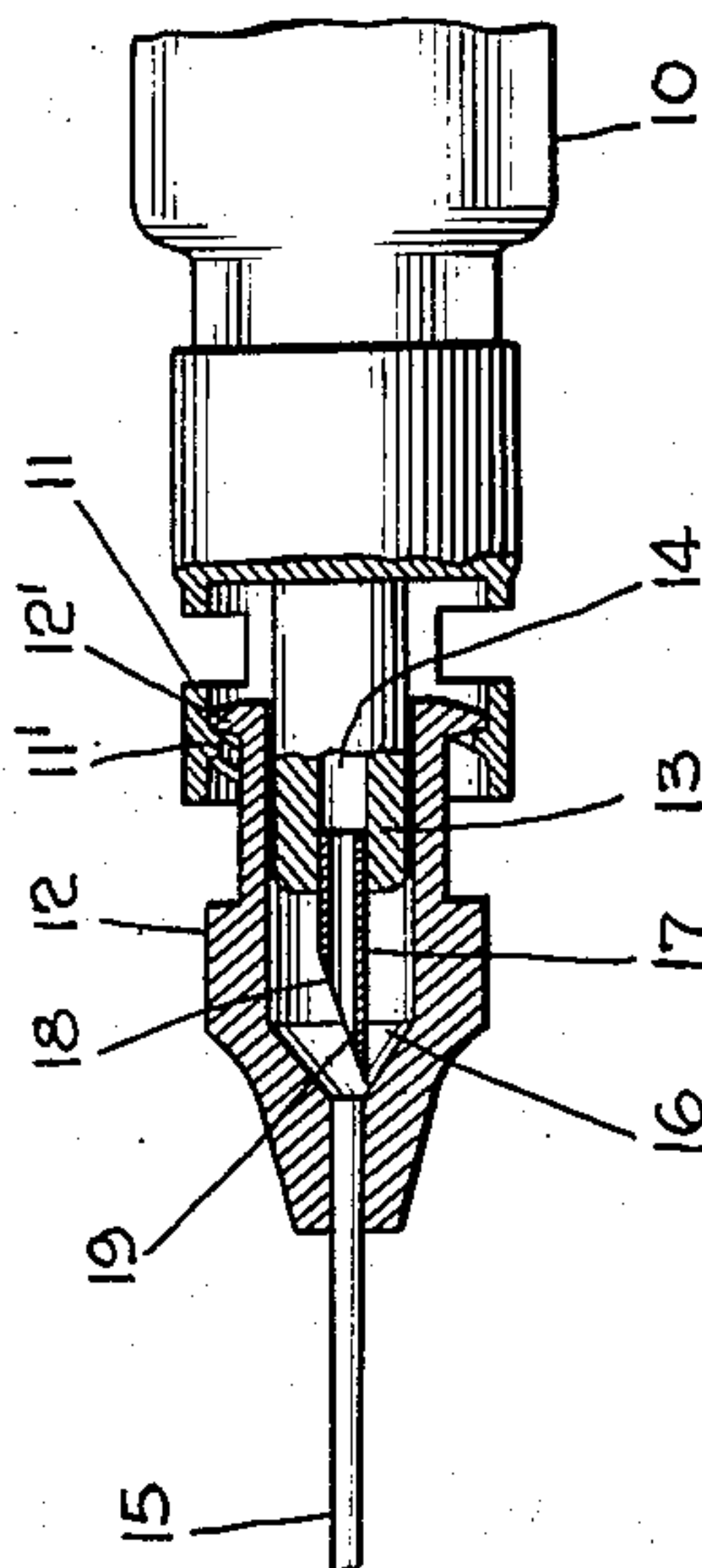
**2,626.603**

HYPODERMIC SYRINGE

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HYPODERMIC SYRINGE

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2 Claims. (Cl. 128—218)

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This invention relates to hypodermic syringes for use in injecting various potions into a patient by the medical profession. More particularly, the invention deals with providing a syringe with means for directly filling the syringe vial so as to expedite the time factor in administering a hypodermic injection. The novel features of the invention will be best understood from the following description, when taken together with the accompanying drawing, in which certain embodiments of the invention are disclosed and, in which, the separate parts are designated by suitable reference characters in each of the views and, in which:

Fig. 1 is a side view of a syringe diagrammatically indicating the method of its use; and

Fig. 2 is an enlarged sectional detail view of one end of a syringe indicating in part a hypodermic needle coupled therewith.

In the use of hypodermic syringes, a problem exists, particularly in the handling of heavy oily potions that are injected into the patient by physicians. In such instances, physicians have found the need to first use one needle for transferring the potion from a vial into the syringe, to then remove this needle and attach a hypodermic needle suitable for injection. These operations are time taking and also require the use of unnecessary equipment and to dispense with this I have provided a very simple means in the form of a needle attachment to the syringe body, by means of which the potion can be directly drawn into the syringe, after which the usual injection needle is attached to the syringe, preparatory to the use thereof, thus eliminating one complete operation and the need for handling and sterilizing of additional equipment.

In the accompanying drawing, I have shown at 10 the outline of a syringe, preferably of the "Luer Lock" type. The syringe is provided, at one end, with a standard quick thread coupling 11, with which a standard type of syringe needle 12 is detachably coupled through interengaging coupling portions 11', 12', as diagrammatically seen in Fig. 2 of the drawing. Within the coupling 11 is a reduced tubular portion 13, through the bore 14 of which the solution is normally drawn into the syringe 10 through a suitable needle, which would be equivalent to the needle 12, except for the size of the stem portion of the needle. The needle 12 has such stem portion, as seen at 15.

To overcome the objections previously outlined, I mount in the bore 14, to extend beyond the tube 13 into the chamber portion of the needle 12 a stub needle 17 having a bevelled end 18 to form an elongated admission opening 19 which is indicated in Fig. 1 of the drawing. The stub needle 17 is utilized for passage through the usual rubber sealed end of a vial 20, indicated in Fig. 1 for removal of a portion of the contents of said vial, which operation will be

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apparent from a consideration of Fig. 1; thereafter, the needle 12 is directly coupled with the coupling 11, in the manner illustrated in Fig. 2 and the syringe is now ready for use to administer the injection into the patient.

It will be apparent that the syringe is sterilized preparatory to the introduction of the solution thereinto in the manner referred to in Fig. 1 and the needle 12 will also be sterilized prior to its attachment to the syringe.

With my improved construction and, simply by including the stub needle 17, I provide means for directly filling the syringe, thus dispensing with the use of the filling needle which is commonly employed.

It will be understood that the addition of the stub needle 17 which can be welded or brazed into position adds little to the initial cost of producing the syringe 10 and, yet, adds materially to the practical use of devices of this kind.

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

1. In hypodermic syringes of the character described, a threaded coupling at one end of the syringe with which a hypodermic needle is adapted to be detachably coupled, a tubular portion within and spaced from said coupling and a stub tubular needle arranged in and fixed to said tubular portion, and said stub needle having outwardly of said tubular portion a long tapered outer end portion.

2. In hypodermic syringes having a threaded needle coupling at one end, a hypodermic needle adapted to be detachably coupled with said coupling, the syringe having, within and spaced from the coupling, a projecting tubular portion, the hypodermic needle having a chamber for receiving the tubular portion of the syringe, the chamber extending beyond the tubular portion of the syringe, a stub tubular needle projecting beyond the tubular portion and extending into said chamber when the hypodermic needle is coupled with said syringe, and said stub needle having a tapered outer end.

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