(No Model.)

S. R. SLATER.

HYPODERMIC SYRINGE.

No. 486,057. Patented Nov. 8, 1892.

Fig. 1.

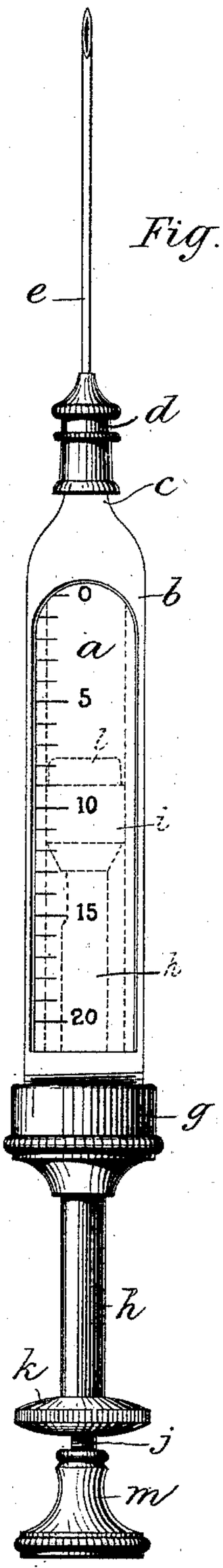


Fig. 3.

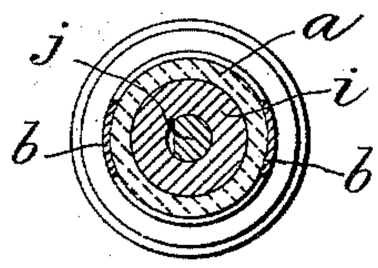


Fig. 4.

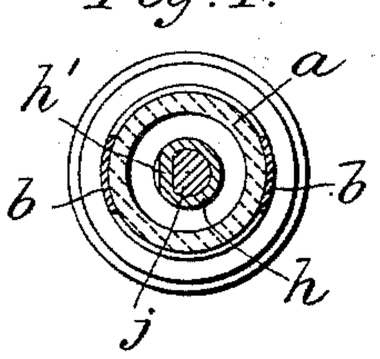
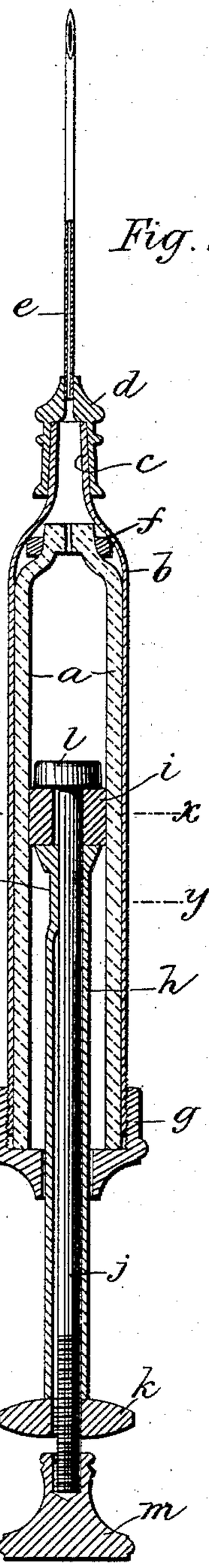


Fig. 2.



Witnesses.

Allen Pamplin

James Boles.

Inventor:

Stanley Reid Slater

UNITED STATES PATENT OFFICE.

STANLEY READ SLATER, OF LONDON, ENGLAND, ASSIGNOR TO SILAS MAINEVILLE BURROUGHS AND HENRY SOLOMON WELLCOME, OF SAME PLACE.

HYPODERMIC SYRINGE.

SPECIFICATION forming part of Letters Patent No. 486,057, dated November 8, 1892.

Application filed June 8, 1892. Serial No. 435,990. (No model.)

To all whom it may concern:

Be it known that I, STANLEY READ SLATER, a subject of Her Majesty the Queen of Great Britain, residing at Clapton, London, in the county of Middlesex, England, have invented a certain new and useful Improved Hypodermic Syringe, of which the following is a specification.

My invention relates to an improved hypodermic syringe, the object of same being to provide means for the protection of the graduated glass body, such means enabling, also, the needle and cap to be readily affixed to the body of the instrument, and also to construct the piston and connected parts in such a manner that they may be readily adjusted and removed for cleaning purposes.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is an elevation of my improved syringe. Fig. 2 is a longitudinal section of same. Fig. 3 is a cross-section taken on the line *x x*, Fig. 2, and Fig. 4 is a similar section taken on the line *y y*, Fig. 2.

The syringe is provided with the usual graduated glass body *a*, and over this I place a light metal casing *b*, having a cut-away face and back, as shown, so as to expose the glass body and its contents, or one face only may be cut away, or the casing may be made open in parts otherwise than as shown in the drawings. This casing affords a protection to the glass body *a*, and also, as will be seen by reason of its tapered end or nozzle *c*, affords a means of affixing the usual cap *d* and needle *e*, which are slipped upon the same instead of, as usual, upon the tapered end of the glass body. In place of this tapered end I make the glass body with a blunt or cut-off end, as shown, and place around the contraction of same a rubber or like ring or washer *f*, which prevents the glass from moving about in the casing. The glass is retained in the casing by means of a cap *g*, which is screwed onto this latter. The cap *g* has a passage through same, through which passes the tubular piston-rod *h*, said piston-rod carrying a rubber or other piston *i* and a rod *j*, having a cap *l*. This rod *j* must be prevented from turning in the piston *h*, and to accomplish this I prefer to remove a portion of the metal of the rod *j*, so as to form a flat face, as clearly shown in Figs. 2, 3, and 4, and to pinch up the tubular piston *h* at the point *h'*, as shown, so that while capable of sliding therein the rod is not able to turn. The other end of the rod is screwed and carries a nut *k* and at its extreme end a suitable handle *m*. The nut *k* abuts against the piston *h*, and it will be seen that by turning same the rod *j* will be raised or lowered and the piston *i* be consequently compressed or released, so that its tightness in the glass body may be regulated.

By unscrewing the cap *g* the piston and rods may be removed, and by removing the nut *k* and handle *m* the rod *j* may be removed from the piston *h* for cleaning or other purposes.

What I claim is—

1. A syringe comprising a protecting-casing having a cut-away portion, a nozzle and retaining-cap secured to the casing, a glass body fitting the casing, having a reduced end, and a washer interposed between the reduced end of the body and casing, substantially as described.

2. A syringe comprising a protecting-casing having cut-away portions, a nozzle and retaining-cap connected to the casing, a glass body fitting the casing, a tubular piston-rod having a contracted portion and carrying a compressible piston, a screw-rod sliding in said piston and having a flattened face corresponding to the contracted portion of the piston-rod, a cap, and an adjusting nut and handle, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

STANLEY READ SLATER.

Witnesses:
ALLEN PARRY JONES,
JAMES BOLES.