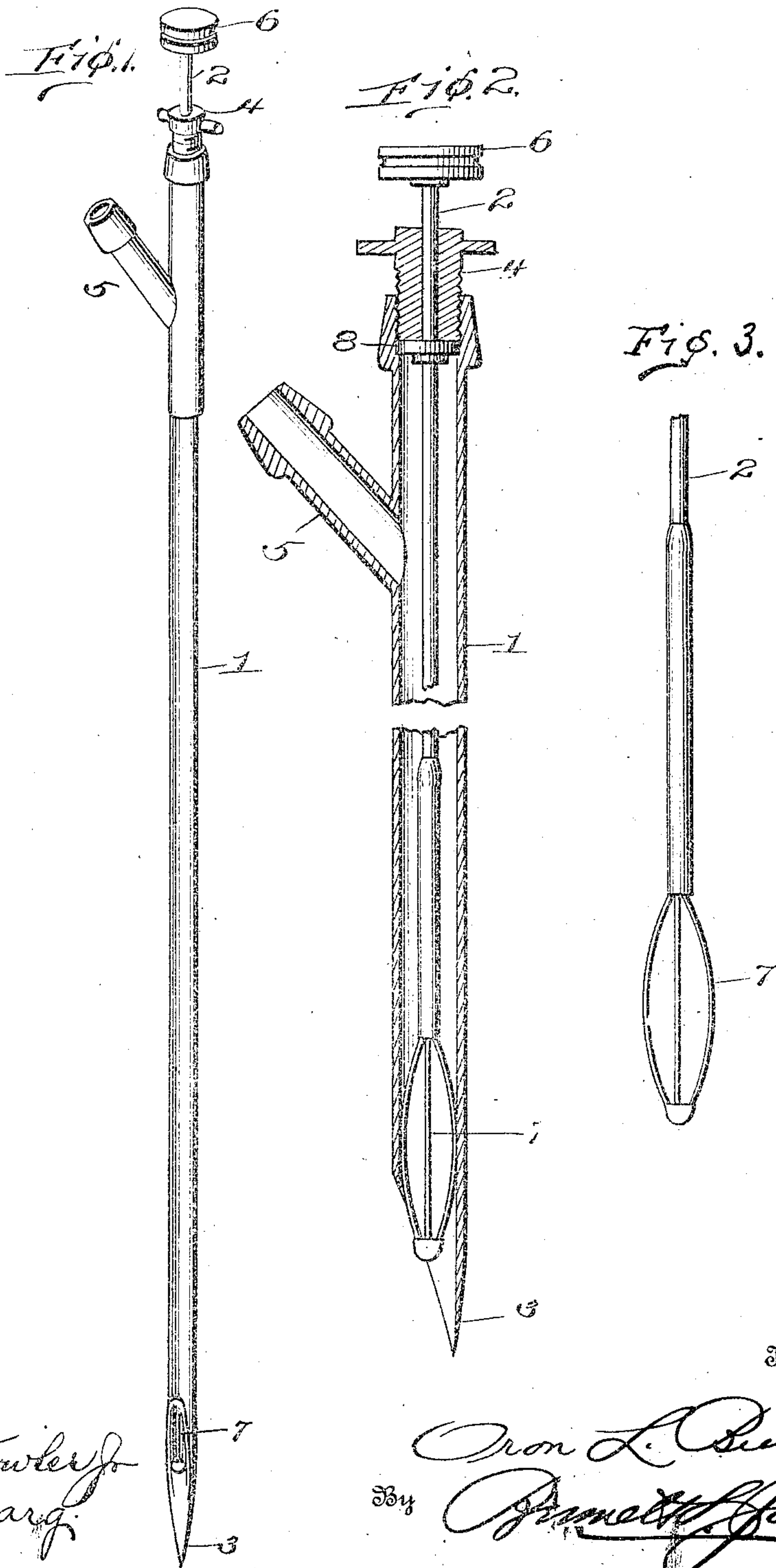


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SELF CLEANING TROCAR.
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958,854.

Patented May 24, 1910.



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UNITED STATES PATENT OFFICE.

ORON L. BUNN, OF PEORIA, ILLINOIS.

SELF-CLEANING TROCAR.

958,854.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ORON L. BUNN, a citizen of the United States, residing at Peoria, in the county of Peoria and State of Illinois, have invented certain new and useful Improvements in Self-Cleaning Trocars, of which the following is a specification.

This invention relates to trocars.

10 The object of the invention is to provide an implement of this character which shall be self-cleansing, that will not become clogged in use, and which may be employed by undertakers for relieving cavities of
15 gases, for drawing blood by tapping the heart; by physicians for relieving dropsical cavities from water; and by veterinary surgeons in withdrawing water from around the lungs of animals.

20 A further object is to provide a trocar which may be readily inserted and withdrawn without undue laceration, and in the use of which the operator will be protected from liability of infection from withdrawn
25 matter.

With the above and other objects in view, as will appear as the nature of the invention is better understood, the same consists in the novel construction and combination of parts
30 of a trocar, as will be hereinafter fully described and claimed.

In the accompanying drawings forming a part of this specification, and in which like characters of reference indicate corresponding parts: Figure 1 is a view in elevation of
35 a trocar constructed in accordance with the present invention. Fig. 2 is a longitudinal sectional view, on an enlarged scale, of the implement, the same being broken away.
40 Fig. 3 is a detail view of a portion of the implement.

Referring to the drawing, 1 designates the tube or cylinder and 2 the scraper or plunger. The entering end of the tube is beveled at a long angle to its longitudinal axis
45 to provide an entering point 3 which is sharp, and of a contour to insure its ready insertion without danger of undue laceration, and the bore of the tube is of the same
50 diameter throughout its entire length, thus to insure easy passage of matter, the entering end being unobstructed, thus to obviate danger of clogging. At the end opposite

the point 3 the tube is provided with a stuffing box comprising a threaded nut 4 and a
55 resilient gasket 8, the latter being designed snugly to embrace the rod 2, and thus prevent escape of any matter in the use of the device. The tube is provided with a branch
60 5, as is usual with such implements, to be engaged by a rubber tube for carrying off the matter withdrawn, and as this is well understood, detailed illustration is deemed unnecessary.

The scraper or plunger, which constitutes
65 one of the essential features of the invention, inasmuch as it secures the object of insuring free passage of matter through the tube and also of preventing clogging, comprises a rod having at one end a knurled
70 finger-hold 6 and at its other end a cage 7, comprising in this instance four members that are resilient in character and fit snugly the bore of the tube. As will be obvious the number of the members of the cage may
75 be varied, and as such modification will be readily appreciated detailed illustration thereof is thought to be unnecessary. By the provision of the cage, when the trocar is inserted into a cavity, gaseous or other-
80 wise, free passage of liquid or the like will be insured upon withdrawing the plunger until the cage has passed the branch 5, and should the tube become clogged, it will only be necessary to reciprocate the plunger to
85 remove obstructive matter. It will be observed by reference to Fig. 2 that the entering point of the tube normally projects slightly beyond the cage, and this will insure a proper incision, with discharge of
90 matter, without liability of clogging, inasmuch as the diameter of the plunger is relatively small as compared with the bore of the tube.

The improvements herein defined, while
95 comparatively simple in construction, will cooperate in the presentation of a thoroughly efficient implement, and one which will be entirely practical and thoroughly effective for the purposes designed.
100

Having thus described the invention, what is claimed as new, is:—

A trocar comprising a straight rigid tube having a bore of the same diameter throughout its length, and provided with a terminally unobstructed long beveled entering
105

point, the tube being provided with a lateral branch to be engaged by an off-take tube, and at the end opposite the entering point with a stuffing box, and a plunger provided with a cage formed of resilient members to engage the bore of the tube to clean the same, the shank of the plunger being disposed within the stuffing box to prevent

escape of any septic matter in the use of the device.

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

ORON L. BUNN.

Witnesses:

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