Feb. 2, 1954

R. E. STONE

2,667,682

TROCAR

Filed May 8, 1950

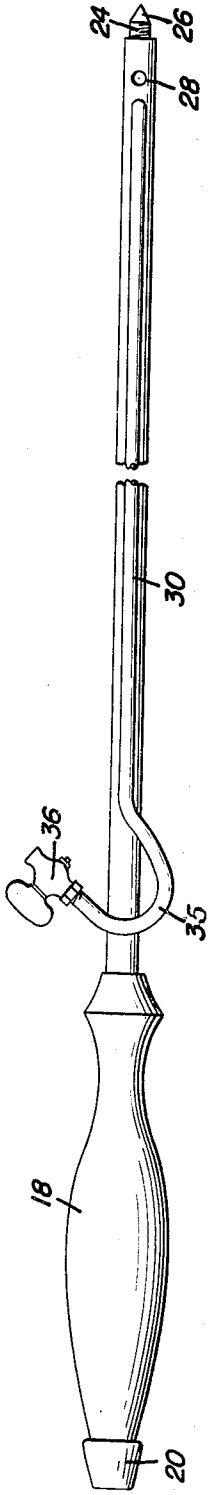

Fig. 1

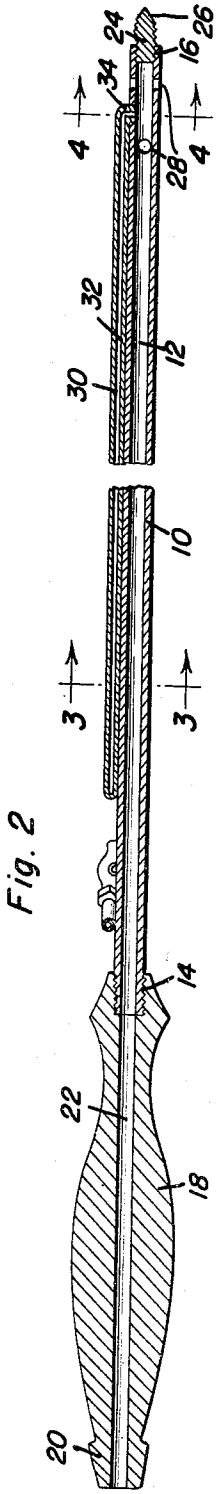

Fig. 2

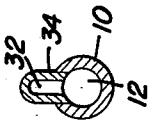

Fig. 4

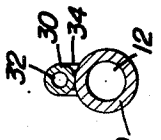

Fig. 3

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TROCAR

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1 Claim. (Cl. 27—24)

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This invention relates to the class of surgical instruments and more particularly to an improved trocar for use in embalming.

An object of this invention is to provide a trocar which will include means for preventing the suction tube thereof from becoming choked due to the lack of fluid flow and the consequential suction of solid substances into the passageway of the suction tube.

Another object of this invention is to provide a trocar having simple means for the detachment of the various elements of the embalming instrument so that it may be readily and thoroughly cleaned and easily stored in a relatively small compass.

Still another object of this invention is to provide an embalming instrument or trocar having a vent tube in communication with a suction tube, the vent tube being controlled by a valve adjacent the handle which is secured to the suction tube of the instrument in order that the device may be easily and accurately controlled.

Still further objects of the invention reside in the provision of a trocar that is highly efficient in operation, simple in construction and design, and comparatively inexpensive to produce.

These, together with the various ancillary objects of the invention which will become apparent as the following description proceeds, are attained by this trocar, a preferred embodiment of which has been illustrated in the accompanying drawings, by way of example only, wherein:

Figure 1 is a side elevational view of the trocar comprising the present invention;

Figure 2 is a longitudinal sectional view of the embalming instrument;

Figure 3 is a vertical sectional view as taken along line 3—3 in Figure 2; and

Figure 4 is a vertical sectional view as taken along line 4—4 in Figure 2.

With continuing reference to the accompanying drawings, wherein like reference numerals designate similar parts throughout the various views, the reference numeral 10 generally designates an elongated cylindrical tube having a longitudinally extending passageway 12 therethrough and having an externally threaded end 14 and an internally threaded end 16. Secured to the externally threaded end 14 of the cylindrical member 10 is a handle member 18 which is formed with a suitable grip surface and with an anchor surface 20 for securing thereon a rubber hose, or the like, which is attached to suitable suction means, such as a pump or other like device. As can be readily seen, the handle 18 is

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provided with a passageway 22 which is in communication with the passageway 12.

An externally threaded head 24 is readily engaged in the internally threaded end 16 and is provided with a pointed edge 26 so as to enable a more satisfactory insertion of the instrument. There are provided a plurality of spaced apertures 28 in the cylindrical member 10 in order that the fluid to be aspirated can be withdrawn therethrough. These apertures are in communication with the longitudinally extending passageway 12.

An elongated tubular member 30 having a passageway 32 therein is positioned alongside the cylindrical member 10 and at one end is provided with a portion 34 which passes through an opening in the cylindrical member 10 and thus permits communication between the passageway 32 and the passageway 12. The other end of the member 30 is curved as at 35 so that a readily available finger grip can be provided for aiding in the withdrawal of the device from the body cavity. However, this curvilinear portion is also provided in order to more adequately position the valve 36 adjacent the handle 18 in order that the valve may be in position for easier control by the operator's hand.

Obviously, with the threaded portion 24 of the instrument in a body cavity and upon the application of suction to the handle 18, the fluid will be sucked through the passageway 12 and the passageway 22. However, after evacuation of all of the fluid, or the fluid that is readily available about the headed portion of the instrumention, there will be a tendency to withdraw heavier matter due to the action of the vacuum. Hence, the tube 30 will supply air as a substitute for the body fluid in order to eliminate the possibility of the passageway 12 from becoming choked up. Upon the application of suction, any obstruction in the length of the passageway 12 will be readily blow therefrom due to the flow of air.

Since, from the foregoing, the construction and advantages of this trocar are readily apparent, further description is believed to be unnecessary.

However, since numerous modifications and changes will readily occur to those skilled in the art after a consideration of the foregoing specification and accompanying drawings, it is not intended to limit the invention to the precise embodiment shown and described, but all suitable modifications and equivalents may be resorted to, falling within the scope of the appended claim.

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

A trocar comprising a tube, a tubular handle on one end portion of said tube communicating therewith, the other end portion of the tube having a plurality of intake ports therein, a closure in said other end portion of the tube, a vent pipe mounted longitudinally and exteriorly on the tube and communicating therewith at said other end portion thereof, said vent pipe terminating in a substantially U-shaped inner end portion free of the tube and extending angularly thereacross and providing a finger grip adjacent the handle, and a manually actuated control valve on the inner end of the vent pipe operable from the handle.

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