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J. B. DAVIS

2,425,277

TROCAR

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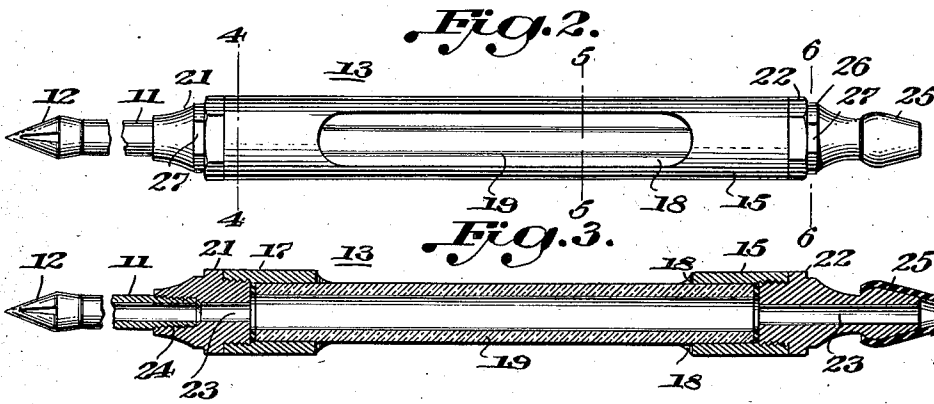
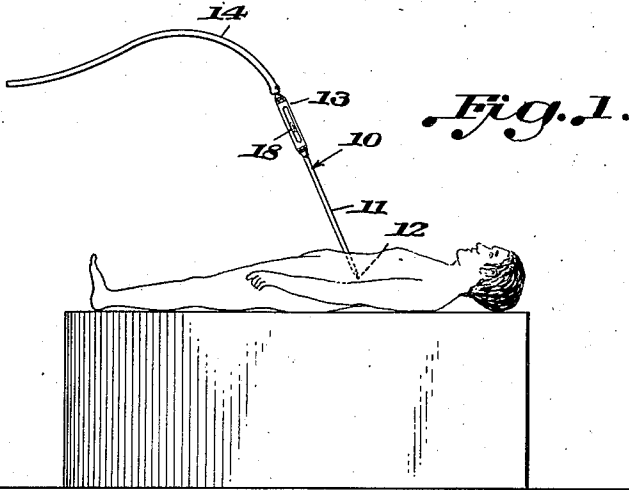


Fig. 4.

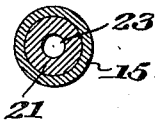


Fig. 5.

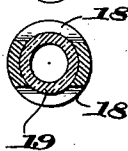
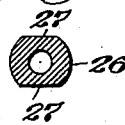


Fig. 6.



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UNITED STATES PATENT OFFICE

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TROCAR

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3 Claims. (Cl. 27—24)

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This invention relates to embalming instruments, and more particularly to a trocar.

Heretofore efforts have been made to provide a trocar with means for indicating flow of fluid therethrough. However, such efforts have resulted in devices not completely satisfactory because they could not be easily handled, or were too complicated or expensive.

It is, therefore, an object of the invention to provide a new and improved trocar having a portion utilizable as a handle by means of which fluid passing therethrough is rendered clearly visible.

Further objects and advantages of the invention will be apparent from the following description taken in conjunction with the accompanying drawings, wherein:

Figure 1 is an elevation of a trocar in accordance with my invention in use;

Fig. 2, a side elevation;

Fig. 3, a longitudinal section of the trocar; and,

Figs. 4, 5, and 6, are cross-sections taken respectively on lines 4—4, 5—5 and 6—6 of Fig. 2.

In the embalming process a trocar 10 is adapted to be inserted in the body to be embalmed as illustrated in Fig. 1. The trocar comprises a rigid metal tube 11 of brass or the like having at its free end a body penetrating tip 12. The upper end of tube 11 is connected to a hollow operating handle 13 which is connected with a flexible aspirator tube 14 for extracting fluids from or conveying fluids to the body in the embalming process.

In accordance with my invention the trocar includes the improved handle construction illustrated in detail in Figs. 2 to 6, inclusive. This handle comprises a main longitudinal tube or casing 15, preferably of brass, having internally threaded ends 16 and 17 and intermediate longitudinal sight slots 18 in opposite sides of tube 15. Inside tube 15 is a sight glass or tube 19 of glass or other transparent material providing a chamber. This tube extends through the tube 15 beyond the ends of the sight slots 18 and at each end of tube 19 is a washer 20 of rubber for providing a fluid-tight seal in cooperation with connecting end elements 21 and 22 threaded into the internal threads in the ends 17 of the tube 15.

End elements 21 and 22 are provided with longitudinal bores or passages 23 for the free passage of fluid in either direction through the trocar. The chamber within the tube 19 is of a diameter substantially greater than the diameters of the passages 23. Consequently, turbulence will be imparted to liquid flowing through

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the device in either direction so that, because of such turbulence, the flowing liquid can be easily observed. End element 21 has an enlarged internally threaded bore 24 for recessing the threaded end of trocar tube 11 and afford a rigid connection therewith while end element 22 has a suitable nipple formation 25 for connection with the end of flexible tubing 14.

Connecting end elements 21 and 22, as set forth are provided with screw joints with the handle tube 15 and in order to facilitate the assembly or disassembly of these end elements, as shown best in Fig. 6, the section 26 of these end elements are provided with flat portions 27 for receiving a suitable wrench for turning them into and out of their assembled positions.

Thus is provided an embalming instrument in the end of a trocar having a substantially streamlined handle portion of the desired size and shape to be conveniently grasped or clasped in the hand, and by means of which handle the device may be easily moved or otherwise manipulated. Further, this handle comprises a casing having transverse elongated slots which extend a substantial portion of both the length and the width of the casing to afford clear vision through the tube. Furthermore, the threaded plugs which close the end of the tube are streamlined and are threaded into the casing and bear against the end of the sight tube with an interposed gasket to render the same fluid-tight. The closure plugs are so configured, i. e., with shoulders that correspond to the outside diameter of the casing and with their tapered wall surfaces, that a substantially streamlined article is provided.

It will be obvious to those skilled in the art that various changes may be made in the invention without departing from the spirit and scope thereof and therefore the invention is not limited by that which is shown in the drawing and described in the specification but only as indicated in the appended claims.

What is claimed is:

1. An embalming device having a handle portion of a size and configuration to be conveniently grasped and manipulated with one hand by an operator during the removal of fluid and waste matter from, or the introduction of embalming fluid into, a human dead body, said handle portion comprising a casing having a longitudinal passage therethrough and a transparent portion through which clear vision of the interior of the passage and movement of liquid can be observed, and with a part of said casing including said transparent portion defining a chamber

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provided with a restricted inlet and a restricted outlet for causing turbulence in order to facilitate observation of the contents of said chamber when liquid is flowing from or into the cavity of a human dead body, a tubular needle adapted to be connected to said handle, said needle being of a length to extend into such cavity for removing liquid and waste matter therefrom and for injecting liquid thereinto through both said needle and said casing and such movement observed, whereby it can be determined whether all of the liquid and waste matter have been removed from a particular cavity of such body.

2. An embalming device comprising a handle portion including a casing having a longitudinal passage defining a chamber with such passage restricted at each end of said chamber so that turbulence will be imparted to liquid moving through said chamber, a sight glass affording vision of the interior of said chamber, said casing being constructed for connection to a tubular needle of a length to extend into a cavity of a human dead body and usable for removing liquid and waste matter therefrom and for injecting fluid thereinto through both said needle and said passage and the removal of said liquid and waste matter observed during movement through said passage, due to turbulence on account of the restricted ends of the chamber, whereby it can be determined whether all of the liquid and waste matter have been removed.

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3. An embalming device comprising a handle portion including a casing having a longitudinal passage defining a chamber with such passage restricted at each end of said chamber so that turbulence will be imparted to the liquid moving through said chamber, a sight glass through which the interior of said chamber can be viewed, said casing being constructed for connection to a tubular needle of a length to extend into a cavity of a human dead body in the process of removing liquid and waste matter therefrom and injecting fluid thereinto through both said needle and said passage and with such movement through said passage observed so that it can be determined whether or not the cavity is completely filled with or emptied of the injected fluid.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,795,340	Larson	Mar. 10, 1931
657,440	McCaw	Sept. 4, 1900
1,905,527	Thomas et al.	Apr. 25, 1933
1,882,213	Donovan	Oct. 11, 1932