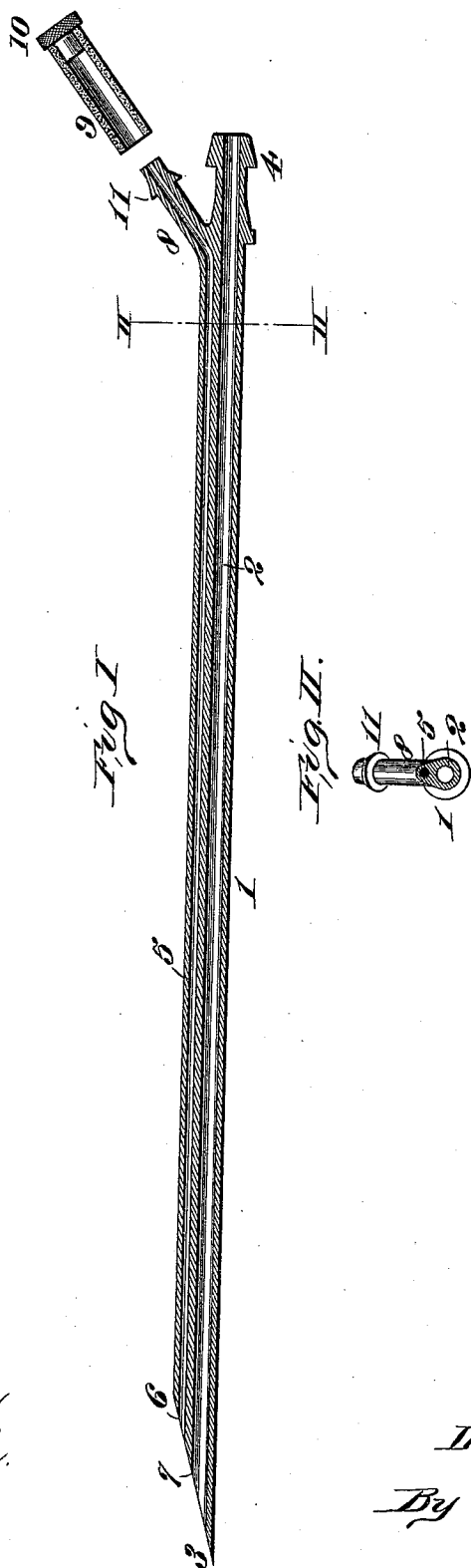


(No Model.)

L. G. KREGEL.
COMBINED TROCAR AND EMBALMING NEEDLE.

No. 519,635.

Patented May 8, 1894.



Fitted
A. W. Ehrlich
E. C. Ehrlich

Inventor:
Louis G. Kregel.
By Wright & Co. Attys

UNITED STATES PATENT OFFICE.

LOUIS G. KREGEL, OF ST. LOUIS, MISSOURI.

COMBINED TROCAR AND EMBALMING-NEEDLE.

SPECIFICATION forming part of Letters Patent No. 519,635, dated May 8, 1894.

Application filed December 26, 1893. Serial No. 494,637. (No model.)

To all whom it may concern:

Be it known that I, LOUIS G. KREGEL, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Trocars, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to certain improvements in a combined trocar and embalming needle, the object being to construct such an instrument in a manner which will facilitate its use in withdrawing blood and foreign substances from the body; and my invention consists in features hereinafter fully described and pointed out in the claim.

Figure I is a longitudinal section of my improved instrument. Fig. II is a transverse section, taken on line II—II, Fig. I.

Referring to the drawings, 1 represents a tube having a longitudinal cavity or opening 2, through which the matter passes from the body, the inner end of the tube being reduced to a point 3, and the outer end of the tube having a head 4, to receive the hose of the suction pump or device. Parallel with the cavity 2, from the tapering end 3 to near the end 4, is a smaller cavity or opening 5, through which air enters the body to prevent a vacuum in the body, and permit the matter to flow freely through the cavity 2. The inner end of the cavity 5 ceases or stops at 6 on the taper of the inner end of the tube, while the cavity 2 extends to the point 7, which is beyond the point 6, so that the suction of the pump does not tend to draw matter against the mouth of the cavity 5, as it might do if

the inner end of the cavity 5 were even with or beyond the inner end of the cavity 2. The outer end of the tube has a horn 8 extending at an angle from the tube, and the cavity 5 extends through this horn, so as to be presented in a direction away from the mouth of the cavity 2, and not be interfered with or stopped up by the hose connecting the suction pump or device, not shown, with the tube, and also for the purpose of permitting this end of the air cavity to be covered or closed by an elastic nipple 9, which is adapted to be slipped over the horn, and which has a plug 10 at one end. This tube 9 excludes dust from the air cavity, and may also, if desired, be used at times for the purpose of closing the air vent when the embalming fluid is injected through the cavity 2. The horn 8 has a shoulder 11 to assist in retaining the soft, rubber nipple 9 on the horn, when placed there.

The device can be cheaply made and has been, by practical use, found to be very efficient.

I claim as my invention—

A combined trocar and embalming needle, consisting of a tube provided with a horn 8 and a tapered end 3 and having a cavity 2, and an air cavity 5, the inner end 6 of the air cavity stopping short of the inner end 7 of the cavity 2, substantially as shown and described.

LOUIS G. KREGEL.

In presence of—

A. M. EBERSOLE,
C. G. EDWARDS.