Nov. 13, 1945. E. G. MASCARENHAS 2,389,069

HYPODERMIC NEEDLE GRINDER

Filed June 17, 1944

Fig.1.

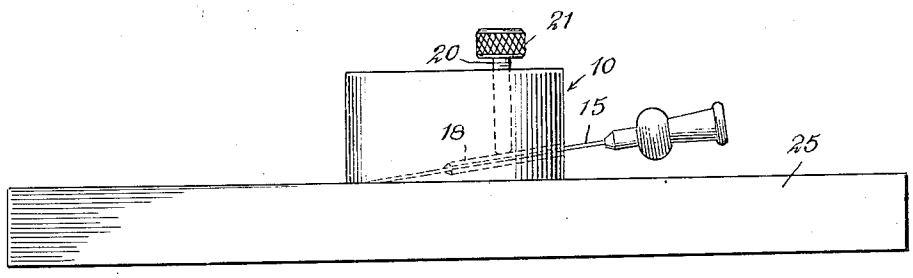



Fig.2.

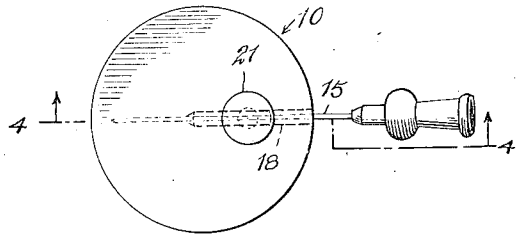



Fig.3.

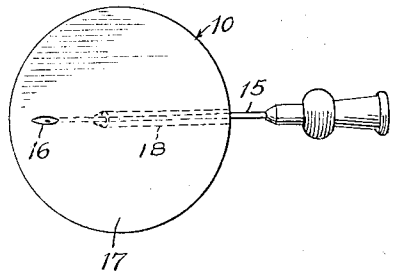



Fig.4.

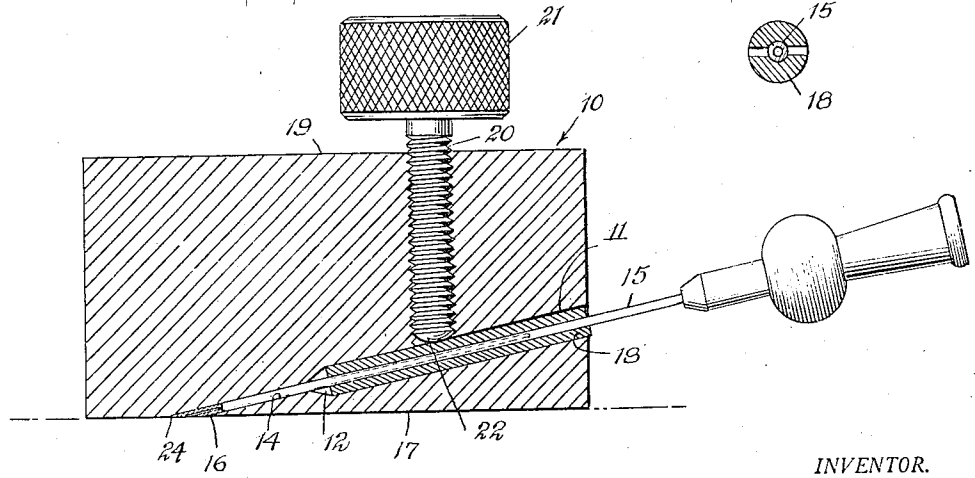



Fig.5.




Witnesses
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# UNITED STATES PATENT OFFICE

2,389,069

## HYPODERMIC NEEDLE GRINDER

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Application June 17, 1944, Serial No. 540,779

2 Claims. (Cl. 51—221)

This invention relates to needle grinders and more particularly to a grinder for hypodermic needles.

An object of the invention is to provide a device with which it is possible to produce or reestablish in hypodermic needles a sharp point of a perfect frustum shape.

At the present time when hypodermic needles lose their point or become blunt resharpening is resorted to. But this work is done almost entirely by hand on an abrasive stone. Not only does the operation involve great skill and loss of time but in many instances a great deal more of the needle is ground down than necessary with a resulting waste.

An object of the present invention is to provide a device with which the proper point on the needle may be secured by anyone without training or unusual skill.

In the accompanying drawing—

Figure 1 is a side elevation of my device;

Fig. 2 is a top plan view thereof;

Fig. 3 is a bottom plan view thereof;

Fig. 4 is a cross sectional view taken on the line 4—4 of Fig. 2;

Fig. 5 is a cross sectional view of the needle holding tool.

Referring more particularly to the drawing, my device consists of a block 10 which may be of any desired shape although made cylindrical it is easy to handle. The block 10 has a bore 11 drilled therethrough at a definite and proper angle. This bore is reduced at 12 to a narrower bore 14 only slightly larger than the diameter of the needle 15. The bore 11 terminates in an opening 16 in the bottom of the block 17. Mounted in the bore 11 is a split tube 18 which functions as a chuck to hold the needle 15 firmly in place without injury thereto. Mounted in the top 19 of the block 10 is a threaded member 20 having a knurled head 21. It will readily be appreciated that when the needle is inserted into the split tube 18 and the knurled head 21 turned the end 22 of the threaded member 20 will engage the split tube 18 to firmly position the needle in place.

The entire device 10 may then be rubbed on an abrasive stone 25. That portion of the needle which extends beyond the opening 16 will be worn clean until full contact between the holder and the stone is established. When this is done a fine sharp point having a chisel edge 24 is produced. If desired, the split tube 18 may be eliminated but its use is preferred since it prevents direct pressure on the needle 15.

I claim:

1. A hypodermic needle sharpening device including a unitary holding block, a bore in said block extending from one side thereof at an angle through said base, said bore being reduced adjacent said base, a split tube in the other portion of said bore, a screw extending through said block and engaging said split tube whereby the tightening of said screw positions the needle in said bore.

2. A hypodermic needle sharpening device including a unitary holding block, a bore in said block extending from one side of the block through the base thereof at a predetermined angle to said base of less than 90°, said bore being reduced adjacent the base, a split tube carried in the unreduced portion of said bore, adjustable screw means extending through said block and engaging said split tube whereby the tightening of said screw means positions the needle in said bore with its end extending through the base, and an abrasive stone adapted to sharpen said outwardly extending needle end when the base of said block is frictionally rubbed against said stone.

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