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POCKET TORCH FOR DELIVERING HEATED COMPRESSED AIR

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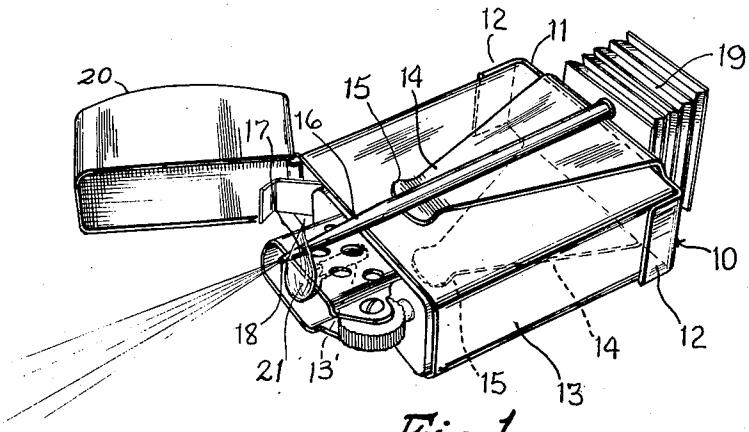


Fig. 1.

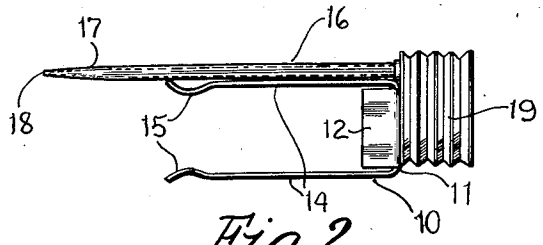


Fig. 2

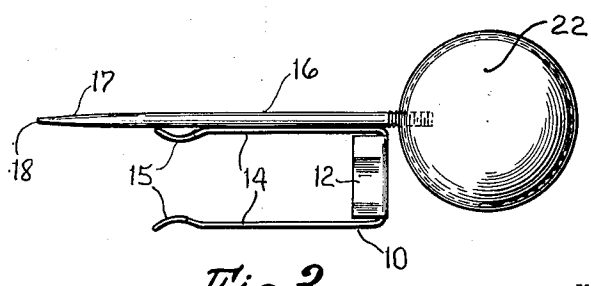


Fig. 3.

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POCKET TORCH FOR DELIVERING HEATED COMPRESSED AIR

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2 Claims. (Cl. 126—110)

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My invention relates to a pocket torch for delivering heated compressed air adapted for use for thawing locks of automobile doors and other doors or fixtures, which have become frozen.

One of the principal object of this invention is to provide such a torch wherein there may be used a conventional cigarette lighter for supplying the heat for generating hot air to be blown onto and against the lock of the door for the purpose of thawing the lock.

It frequently happens that due to the inclemency of the weather a lock of an automobile door or other door or fixture, becomes frozen, with the result that it is difficult to unlock the door. In many instances, ordinary matches are used in an endeavor to thaw the lock. Such a procedure involves considerable time because it is impossible to direct the flame of the match directly upon the frozen lock. Such a procedure is also unsatisfactory because of the short life of the match flame, often not of a sufficient period to complete the thawing.

By the use of my improved portable torch, hot air may be easily and conveniently directed upon and against the frozen lock until the same has been thawed, and this may be done without danger to the lock or to the door or fixture with which it is associated.

The simplicity of construction of my invention also constitutes a principal object of the same.

Other objects will appear hereinafter.

The invention consists in the novel combination and arrangement of parts to be hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawings showing the preferred form of construction, and in which:

Fig. 1 is a perspective view of my improved torch showing the same disposed in a position for directing hot air upon and against a frozen lock;

Fig. 2 is a typical side elevational view of the invention with the cigarette lighter removed;

Fig. 3 is a similar side elevational view but showing a modified form of construction over that shown in Figs. 1 and 2, wherein, in Fig. 3, there is employed a rubber bulb in lieu of bellows for creating air pressure in the tube embodied in the invention.

The several objects of my invention are accomplished by a construction shown in the accompanying drawings and in which there is provided a mounting clip 10. This mounting clip 10 includes a base 11 having upstanding end flanges 12 between which is adapted to be arranged a cigarette lighter 13 of any approved construction

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having a wick 13'. Extending upwardly from the side edges of the base 11 in spaced relation with respect to each other is a pair of spring fingers 14 which are adapted to clampingly engage adjacent walls of the cigarette lighter 13 to hold the casing of such lighter firmly within the clip 10. To facilitate mounting the cigarette lighter 13 upon the base 11 between the fingers 14, the end portions of these fingers are slightly curved as at 15.

Secured in any suitable manner to one of the spring fingers 14, such for example, by welding or the like, is a tube 16. The end 17 of this tube 16 is tapered to provide a restricted orifice 18 and to create a back pressure within the tube 16.

Secured to the opposite end portion of the tube 16 in any suitable manner and likewise secured to the base 11 as by spot welding or the like, is a bellows 19. When the cigarette lighter 13 is mounted in the clip 10 and the cover 20 of the lighter 13 arranged in open position with the wick ignited, the flame 21 of the wick will envelope the tapered end portion 17 of the tube 16 and heat the same so as to heat the air ejected from the tube by the operation of the bellows 19. By directing the tube 16 in a direction to project the heated air upon and against a lock, the lock may be quickly and conveniently thawed without damage or injury to the lock or the door with which it is associated.

When the torch is not in use, if desired the cigarette lighter 13 may be removed from the clip and the clip may be carried on the person of the driver or operator of the automobile for future use. The clip, being of a relatively small, light structure may thus be conveniently carried on the person.

In Fig. 3, the structure there illustrated is substantially identical to that shown in Fig. 2, except that in the device of Fig. 3 I have substituted for the bellows 19 a bulb 22. The operation of the device shown in Fig. 3 is the same as that illustrated in Fig. 2.

The simplicity of my invention is at once apparent from the foregoing construction. It will be found that my invention will be highly useful for the purpose intended; that it will avoid and eliminate the inconvenience heretofore encountered by reason of frozen locks of automobiles and other doors with which locks are associated; and that it comprises relatively few parts and may be manufactured at an economical cost.

While I have illustrated and described the preferred form of construction for carrying my in-

vention into effect, this is capable of variation and modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

Having thus described my invention, what I claim as new and desire to protect by Letters Patent is:

1. A device for the purposes described comprising a substantially U-shaped clip providing confronting parallel spaced apart arms between which the casing of a cigarette lighter is adapted to be removably arranged with its wick end disposed beyond the outer ends of said arms, a tube carried by one of said arms adapted to be disposed in parallel relation with respect to a side of the casing, said tube extending beyond the ends of said arms and having an end portion adapted to be disposed adjacent the wick of the cigarette lighter to be enveloped by a flame from said wick, and means carried by said tube and communicating with the opposite end thereof for pumping air through said tube.

2. A device for the purposes described comprising a clip providing a base into which is adapted to be removably seated the lower end portion of the casing of a cigarette lighter and oppositely parallelly extending spaced apart arms between which said casing is arranged when said end portion thereof is seated on said base having its opposite wick end extending beyond the outer end of said arm, a tube carried by one of said arms and having an end portion adapted to be disposed adjacent the wick of the cigarette lighter to be enveloped by a flame from said wick, and means carried by said tube at the opposite end thereof and communicating therewith for pumping air through said tube.

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REFERENCES CITED

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

UNITED STATES PATENTS

Number	Name	Date
492,434	Richmond	Feb. 28, 1893
548,766	Stackhouse	Oct. 29, 1895
640,947	Richards	Jan. 9, 1900
1,761,408	Parsons	June 3, 1930