Sept. 12, 1933. L. C. MOORE 1,926,298

FIRE FIGHTING APPARATUS

Filed Dec. 7, 1931

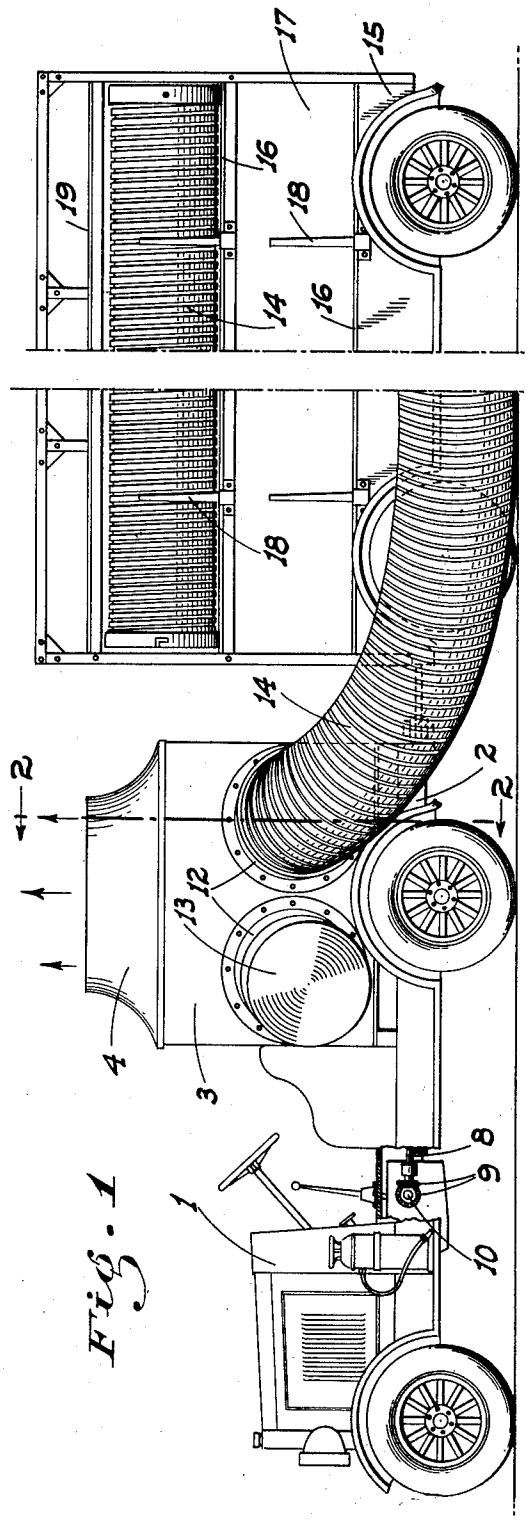


Fig. 1

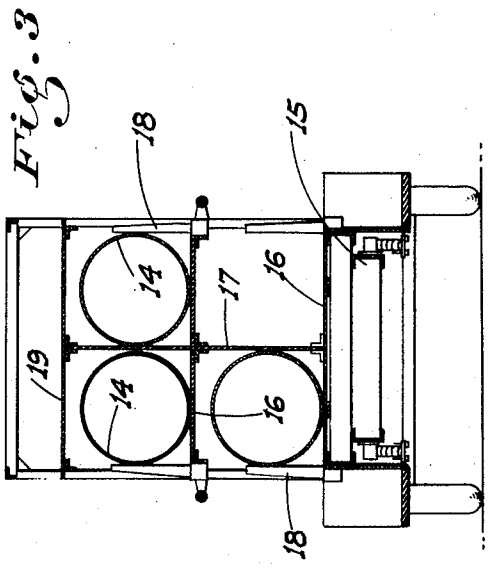


Fig. 3

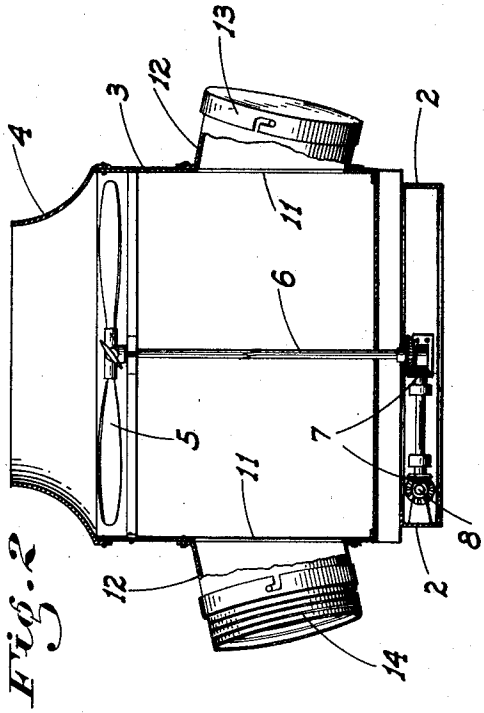


Fig. 2

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FIRE FIGHTING APPARATUS

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Application December 7, 1931. Serial No. 579,379

1 Claim. (Cl. 169—1)

This invention relates to fire fighting apparatus of the type designed for combating blind fires, by drawing the air from the area in which the fire is enclosed and thereby drawing the smoke and gases away from the scene of the fire so that the firemen can see to get at it and can advance without danger of being overcome with smoke and gases. The apparatus of the present invention therefore is of the same general character and functions to the same purpose as that shown in my co-pending application for patent, Serial No. 442,704, filed April 8, 1930.

The previous apparatus however was so arranged that its range of usefulness was considerably limited, as it had to be mounted in direct and close association with the sidewalk or wall opening to the basement, or with a ground floor door or window in order for it to be used. Besides this a certain amount of valuable time was also unavoidably consumed in mounting the apparatus in place for use, and besides the smoke was discharged substantially at the ground level, which was apt to interfere somewhat with the street operations of the firemen.

The principal object of my present invention is to provide an apparatus of the above character mounted in connection with a self-propelled truck and so arranged that it can be put into operation at the scene of a fire in a few seconds, or as quick as a line of hose can be connected to a pump. Also the apparatus is so arranged that the smoke-drawing conduit from the blower is easily inserted into the opening regardless of its position relative to the ground or sidewalk or to the truck without moving the latter and without necessitating that the truck be stationed immediately adjacent the opening or in a certain definite position relative thereto.

A further object of the invention is to produce a simple and inexpensive device and yet one which will be exceedingly effective for the purpose for which it is designed.

These objects I accomplish by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claim.

In the drawing similar characters of reference indicate corresponding parts in the several views:

Fig. 1 is a side elevation of my improved fire fighting apparatus as in operation.

Fig. 2 is a transverse section of the blower as on the line 2—2 of Fig. 1.

Fig. 3 is a transverse section of the conduit carrying trailer looking toward its rear end.

Referring now more particularly to the characters of reference on the drawing, the numeral 1 denotes in general a self-propelled truck of suitable character on the side frames 2 of which, back of the driver's seat, is mounted an upstanding casing 3. This casing is preferably of rectangular form and terminates in an upwardly projecting circular smoke stack or exhaust 4 of somewhat reduced size so that the smoke as discharged will move upwardly in the form of a column and will not tend to settle at a low level.

A propeller 5 forming a blower and arranged to discharge upwardly is mounted on a vertical axis in the casing just below the stack or adjacent the top of the casing proper. A suitably journaled shaft 6 depends from the propeller to a point below the casing, where it is connected by suitable driving means such as a shaft and gearing arrangement 7 with a longitudinally extending shaft 8. This shaft is mounted in connection with one of the side frames 2 and at its forward end is connected by gearing 9 or the like to the transverse power take-off shaft 10 of the truck which is disengageably connected with the transmission mechanism of the truck in the usual manner. The ratio of the gearing is such that the propeller may be driven at high speed without an excessive speed of the truck engine being necessary. Although the various gears are shown exposed it is of course understood that in practice they are housed in so that they may be kept properly lubricated.

The casing below the propeller has a pair of large openings 11 on each side, from which collars 12 rigidly secured to the casing project outwardly; said collars preferably extending in diverging and downwardly angling relation to each other. Removable caps 13 are associated with the collars so that the openings not in use may be kept closed. Adapted to be removably attached to any collar when its cap is removed, are flexible conduits 14 of convenient length. These are preferably made of aluminum so that while they may be quite large (2 or 3 feet in diameter and 16 feet long) they will be rigid against collapse and not too heavy for the firemen to manipulate. The conduits are arranged for detachable connection with each other in the manner of ordinary hose, so that a continuous conduit of any necessary length may be provided. By reason of the blower casing having openings on both sides a connection with a building opening may be easily made from either side of the truck, regardless of the direction in which the latter may be facing relative to the opening. The provision of a pair of

openings on each side enables conduits to be attached to both openings if necessary so as to lead to different building openings if the conditions demand or render such arrangement desirable.

A blind fire can therefore be handled from all angles and blower connection can be easily made with the fire area whether the openings thereto are located in the sidewalk or in the wall at the street level or above or below the same; the limit of the sphere of action of the apparatus being governed solely by the total length of conduit available.

To support the lengths of conduit when not in use in direct connection with the truck, I preferably provide a trailer 15 flexibly attached to the rear end of the truck. This trailer has two decks 16 each arranged to carry a pair of conduit sections in transversely spaced and parallel relation to each other with a partition 17 therebetween. The conduits may be removed from the decks from the open sides of the trailer and are prevented from such removal by uprights 18 detachably socketed in the side beams of the decks. A third deck 19 is preferably disposed about the conduits on the second deck to accommodate such additional fire fighting equipment or accessories as may be desirable.

From the foregoing description it will be readily seen that I have produced such a device as substantially fulfills the objects of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention, as defined by the appended claim.

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

In a smoke exhauster for use at conflagrations the combination with a motor truck of a relative large casing mounted on the truck, such casing having a large discharge outlet discharging vertically therefrom, and a plurality of relatively large free inlet openings spaced about its side walls on both sides of the truck, quick detachable caps normally closing the inlet openings, a horizontally disposed blower propeller interposed above the inlet openings and between said inlet openings and the outlet opening, means to drive the propeller, and an independent conduit arranged for quick attachment to any inlet upon the uncapping of the same.

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