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FIRE FIGHTING APPARATUS

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Fig. 1.

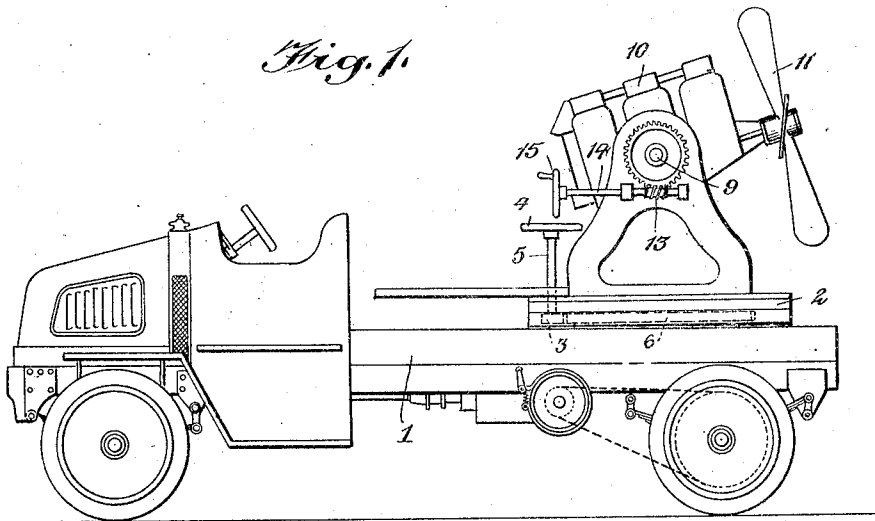


Fig. 2.

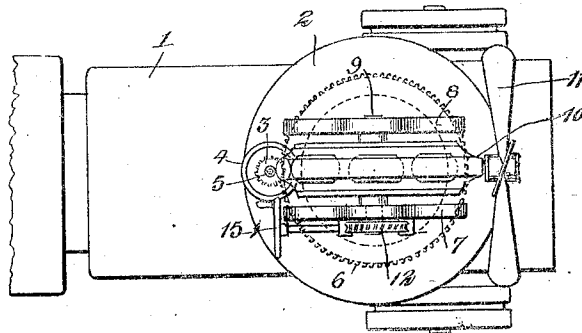
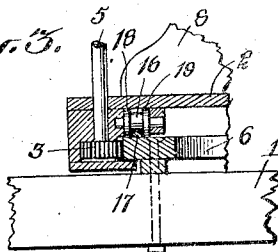


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

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FIRE-FIGHTING APPARATUS.

Application filed October 13, 1924. Serial No. 743,508.

This invention relates to a fire fighting apparatus and has for an object the provision of simple and efficient means whereby the advance of flames or smoke in any given direction can be opposed quickly and efficiently by means of a blast of air.

A further object concerns the provision of simple and efficient means in the form of an engine driven propeller mounted on an adjustable platform, so that the blast of air from the propeller can be directed quickly in any desired direction.

The invention is illustrated in the drawings, of which—

Figure 1 is a side elevation of the apparatus;

Figure 2 is a plan view of the rear end of a vehicle with the fire fighting apparatus mounted thereon;

Figure 3 is a detail sectional view.

The form of the invention shown in the drawings is a preferred form, although it is understood that modifications in the construction and arrangement of the parts and in the character of the materials used may be adopted without departing from the spirit of the invention as set forth in the appended claims.

To those familiar with the situation, the disastrous effect of wind on fire is well known. Very often buildings and property lying in the path of the wind are a total loss. Very often fires that are fanned by advancing winds can only be checked when they have reached an open space, such as a wide street or a vacant lot. Those familiar with the art of fighting fire will testify to the fact that a favorable wind is the most helpful agent in the control of fires. My invention aims, therefore, to provide strong counter-acting currents of air in any desired direction by means of engine driven air propellers mounted on a trunnion which in turn are mounted on a suitable turntable. This apparatus is mounted on a truck for quick transportation to the proper location. The invention is also useful for producing air currents to control and direct smoke and fumes from buildings to enable people working on the outside of the building to do so with comparative safety. The same idea can be applied to docks, freight sheds and warehouses to keep the flames and smoke confined to a small area. Furthermore, in buildings where the fire has started in an upper

story, a current of air strongly directed upwardly through the stairways and elevator shafts will prevent the fire from working downward.

The preferred form of the apparatus is shown in the drawing and includes a truck 1, in which is a turntable 2 rotatably mounted. The turntable is provided with a pinion 3 operated by a hand wheel 4 through shaft 5. This pinion meshes with a gear 6 fixed to the upper surface of the truck body.

The turntable 2 is provided with two trunnion frames 7 and 8, on which a shaft 9 is supported. This shaft 9 supports an engine 10 of any suitable type, which is adapted to drive a propeller 11. One end of the shaft 9 is provided with a gear 12 meshing with a worm 13 mounted on a shaft 14 and operated by a hand wheel 15.

While manipulating the hand wheels 4 and 5, the turntable can be rotated around the vertical axis and the engine can be rotated around the horizontal axis, so that the blast of air from the propeller 11 can be changed quickly and easily as desired. The mobility of the truck 1 also enables the apparatus to be moved from point to point or to have its general direction with regard to the advancing fire changed quickly.

The turntable 2 on its under surface is provided with a plurality of rollers such as 16 journaled in suitable bearings and adapted to roll on the upper surface of the gear 6. This gear is provided with a track or rail 17, on each side of which flanges 18 and 19 of the roller 16 are adapted to light.

It will thus be apparent that this apparatus is simple, efficient and can be very quickly manipulated to direct a blast of air in any desired direction. By having a fleet of these units in a large city or in a town, they can be moved from place to place to form an effective barrier for any advancing flame or to otherwise control flames, fumes and smoke for the purposes previously mentioned.

What I claim is:—

1. An apparatus for fighting fires which comprises a mobile support rotatable about a given axis, an engine rotatable on said support about another axis, and an air propeller carried and driven by said engine.

2. An apparatus for fighting fires which comprises a vehicle body, a turntable rotatably mounted thereon, trunnions on said

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turntable, and an engine rotatably mounted on said trunnions and an air propeller carried and driven by the engine.

3. An apparatus for fighting fires which
5 comprises a vehicle body, a turntable mounted thereon, means for rotating said turntable about a vertical axis, trunnions on said turntable, an engine supported on said
10 trunnions for movement around a horizontal axis, means for adjusting the angular

position of the engine on said trunnions, and an air propeller carried and driven by said engine.

4. An apparatus for fighting fire which
comprises a vehicle, an engine mounted on
said vehicle, an air propeller carried and
15 driven by said engine, and means for moving said engine with respect to the vehicle body as desired in two planes.

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