(No Model.)

F. CANTORÉ.

METHOD OF EXTINGUISHING FIRES.

No. 589,244. Patented Aug. 31, 1897.

Fig. 1.

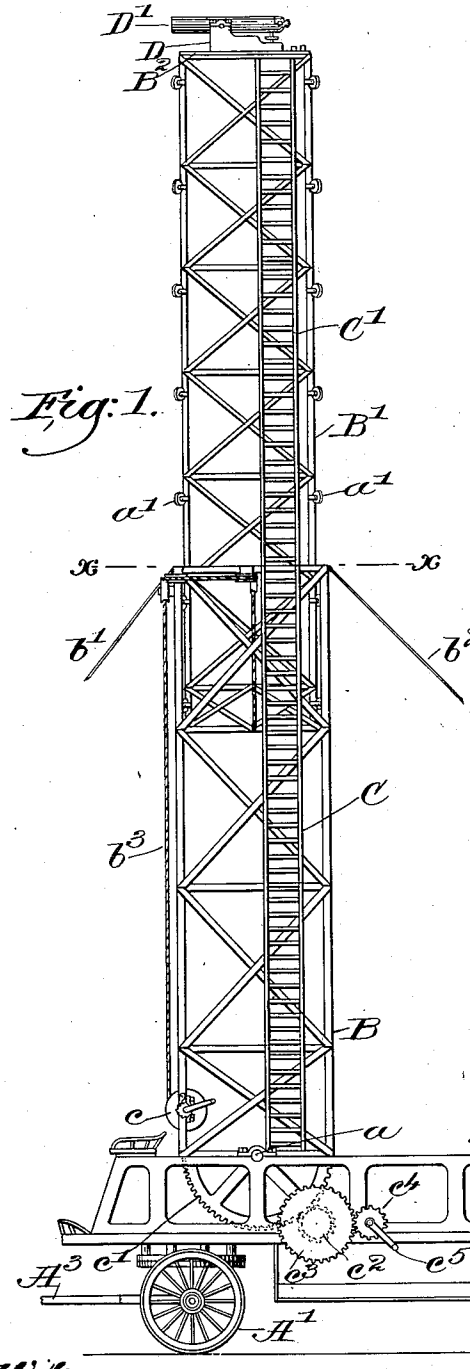


Fig. 2.

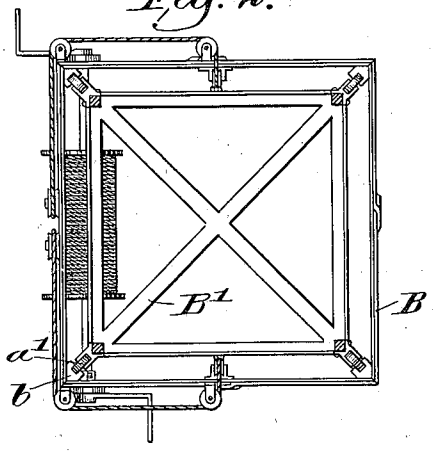


Fig. 3.

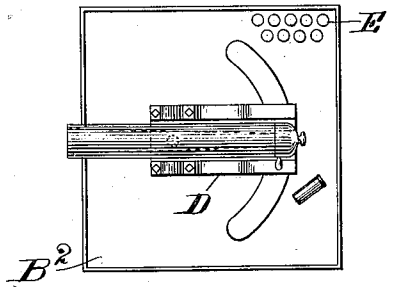
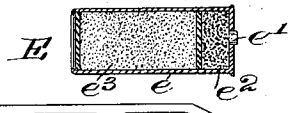


Fig. 4.



Witnesses
Edward F. Allen.
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by Busby Gregory,
attys.

UNITED STATES PATENT OFFICE.

FRANK CANTORE, OF BOSTON, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO MICHELE RUSSO, OF SAME PLACE.

METHOD OF EXTINGUISHING FIRES.

SPECIFICATION forming part of Letters Patent No. 589,244, dated August 31, 1897.

Application filed February 16, 1897. Serial No. 623,672. (No model.)

To all whom it may concern:

Be it known that I, FRANK CANTORÉ, of Boston, county of Suffolk, State of Massachusetts, have invented Improvements in Methods of Extinguishing Fires, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

In the suppression of fires water is commonly thrown onto the fire, and frequently chemicals are used which generate a gas which extinguishes the fire.

In accordance with my invention I employ sand, which is thrown on the fire, the sand striking the fire with a blow and smothering it. To discharge this sand, I employ a cannon adapted to receive cartridges filled with sand, the cartridges containing only just enough powder to project them into the building to the part where the fire exists, the shell of the cartridge being composed of thin paper, which bursts as the cartridge leaves the cannon, so that the sand is scattered all over the fire. This cannon is mounted on a suitable aerial lifting device carried by a car or wagon.

Figure 1, in side elevation, represents a cannon mounted on an aerial lifting device in working position to work at a second or third story of a house; Fig. 2, a section below the dotted line x, Fig. 1; Fig. 3, a top view of the platform and gun, and Fig. 4 an enlarged section of a cartridge.

The car or wagon body A, provided with suitable wheels A' A^2 and tongue A^3, has pivoted on it at a an aerial lifting device B B', made telescopic to fit one part into another, so that when desired the part B', it having suitable tracks a' to run on tracks b on the part B, may be raised to any desired extent by or through suitable ropes b' b^2 b^3, and one or more of these ropes may be attached to a suitable windlass, as C.

The lower part B has a series of teeth c', which are engaged by a toothed gear c^2, fast on a shaft having a larger gear c^3, which is engaged by a pinion c^4, attached to a shaft having a handle c^5.

The top of the part B' has a platform B^2, which is reached by a suitable ladder C C', attached to the parts B B', and this platform has pivotally mounted on it a gun-carriage D, on which in turn is mounted, in usual manner, a gun or cannon D', which may be adapted in any usual way to fire a cartridge E put into the bore of the said cannon.

The bore is tapered somewhat, as shown, the taper being larger toward the muzzle of the cannon.

The cartridge is composed of a thin paper shell or case e, having at its rear end any usual or suitable fulminate, as e', and inside the shell there is a small chamber for powder e^2 and a large chamber for the reception of sand e^3.

The cannon will be placed opposite or partially in any window, door, or other opening in the house where the fire is burning, and loaded with a sand cartridge. The cannon is fired, and as the cartridge leaves the cannon the case inclosing the sand breaks and the sand is thrown and scattered onto the fire, the blow from the sand, which is not a very hard one, tending to put out the fire, the sand falling on the burned timbers or other articles acting to smother and put out the fire.

I believe that I am the first to discharge sand or equivalent material by a cannon into a burning fire to put out or extinguish the same.

The sand will remain where it falls, whereas water discharged on a fire is turned into steam, and an excessive quantity of water will run all through a building and wet down and injure property on a floor where there is no fire.

I am aware that it is not new with me to put out fire by the aid of sand, it having been proposed heretofore to confine sand under pressure above the place of conflagration and permit it to be released and pour down on the fire whenever a fire starts. My invention, however, is entirely distinct from anything of this sort, inasmuch as it contemplates forcibly discharging a comparatively large volume of sand, in a body more or less scattered, directly against the conflagration, the sand striking the burning mass forcibly in a smothering volume, and the several cartridges of sand which may be required being each aimed at a particular spot of the fire and discharged directly thereat with such definiteness and

precision as the firemen may employ and deem necessary.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The herein-described method of extinguishing fire which consists in discharging sand from a cannon into the fire, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

his
FRANK × CANTORÉ.
mark

Witnesses:
GEO. W. GREGORY,
CHAS. H. SAWYER.