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WATER TOWER FOR FIRE FIGHTING PURPOSES

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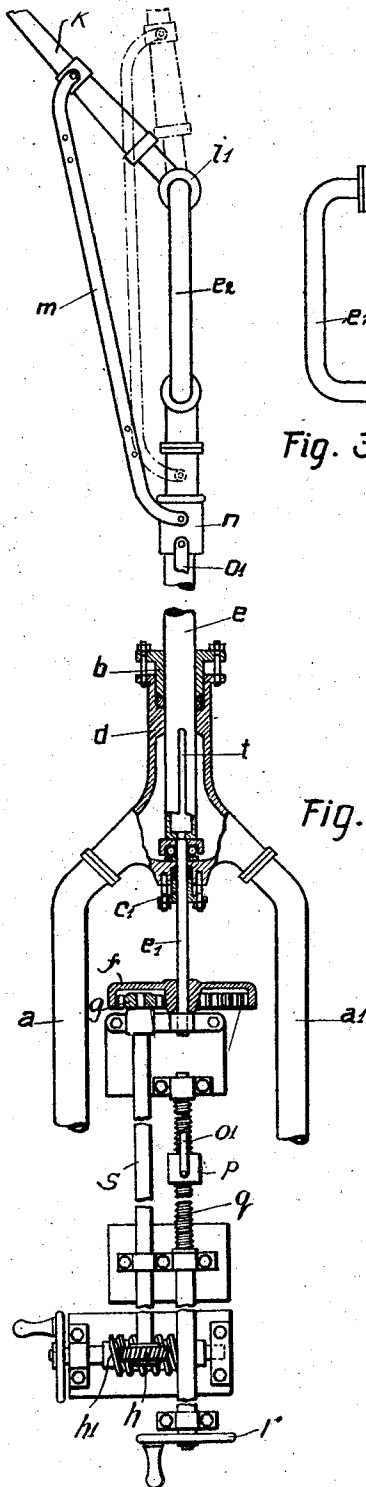


Fig. 1

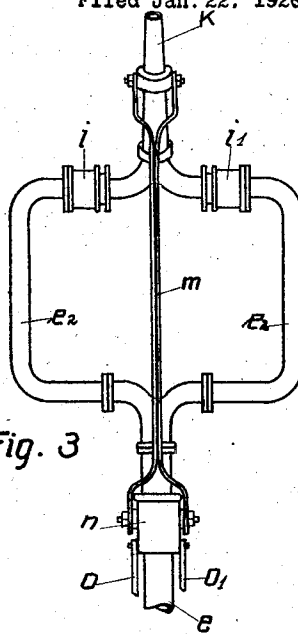


Fig. 3

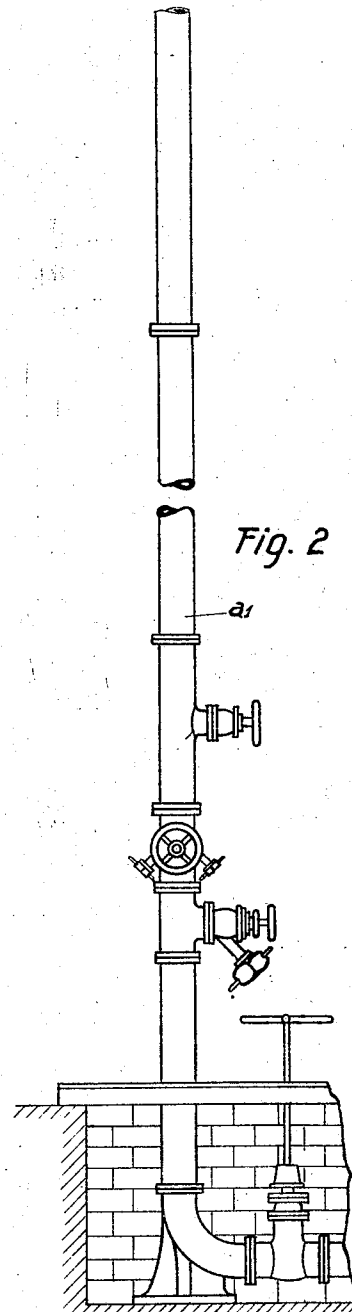


Fig. 2

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WATER TOWER FOR FIRE-FIGHTING PURPOSES.

Application filed January 22, 1926, Serial No. 83,077, and in Germany May 10, 1924.

My invention relates to improvements in water discharge devices for fire extinguishing purposes and more particularly to so-called water towers, comprising a water
 5 delivery pipe with a jet nozzle at its upper end, the latter being adapted to throw a powerful jet of water of great volume and force over a large fire area.

One of the objects of my invention is to
 10 simplify the construction of the whole device and to facilitate the operation of the mechanism for controlling the direction of the discharge.

Another object sought to be attained by
 15 my invention is to thus design the water tower, that it can be erected to a comparatively great height, and at the same time to enable the operator to accurately and positively control from an easily accessible place
 20 without delay and danger the discharge from the nozzle, viz, to play the stream in the direction of any radius of a globe around the top end of the delivery pipe.

Another object of my invention is to thus
 25 design and construct a water tower of the character set forth that it is in all its parts safe against destruction and getting out of order through fire and adverse climatic conditions, and that fire hoses and like mem-
 30 bers of rubber, hemp or other materials, capable of deterioration and of becoming sharply bent over, are, thoroly eliminated.

The nature of my invention is briefly outlined in the annexed claim and will be more
 35 fully understood from the following specification, taken together with the accompanying drawing in which

Fig. 1 is a broken view in elevation partly in section of the improved water tower.

40 Fig. 2 shows the lower end of the water tower.

Fig. 3 is a side view of its upper end.

As seen in Figs. 1 and 2, the water tower consists of a couple of water delivery pipes
 45 a , a_1 , forming the main structure of the tower and being adapted to be connected at their base with any available source of water under compression.

Altho Fig. 2 indicates that the water
 50 tower is supplied from a fixed water main pipe viz, on land, my invention may equally well be employed on fire fighting boats, trucks, wheeled ladders or other conveyances.

55 The delivery pipes a , a_1 are connected

with a water chamber d , which is formed at its top end with a stuffing box b for the rotatable discharge pipe e and with another stuffing box c at its bottom for a spindle e_1 ,
 60 the latter being rigidly attached to the discharge pipe, and by which the latter can be swung around its axis.

The spindle e_1 is operated by means of an internal gear wheel f , pinion g and connecting rod s , the latter being provided at the
 65 bottom end with a worm gear h , h_1 .

By turning the worm wheel h_1 the operator can rotate the discharge pipe e around its axis to any desired position.

The discharge pipe e is preferably formed
 70 at its base with elongated slots or perforations t , representing inlet passages for the water; the arrangement of perforations in rotatable pipes of the character under consideration being known per se in the art.
 75

As seen in Fig. 3 the discharge pipe e carries a bifurcated section e_2 . To the upper end of the latter the nozzle member proper k is attached preferably by means
 80 of stuffing boxes i , i_1 , and is adapted to be swung about its horizontal axis by means of a swing arm m . Said arm m is pivotally attached at its lower end to a sleeve member n , which is slidably guided on the discharge pipe e , as seen in Figs. 1 and 3.
 85

The sleeve n can be shifted up and down by means of a screw spindle q and a nut p threaded thereon. Spindle q can be rotated through a hand wheel r .

The nut is cooperatively connected with
 90 the sleeve n by a pair of rods o , o_1 , substantially vertically extending alongside the pipes a and e .

By turning the hand wheel r which is preferably located near the worm gear h , h_1 ,
 95 so as to be in easy reach of the operator, the latter can swing the nozzle k around its horizontal axis as indicated in dotted lines in Fig. 1 and he can at the same time turn the delivery pipe e around its vertical
 100 axis into any position required.

As outlined above, my invention lends itself to a variety of applications in cases where a particularly large fire area must be kept under control from an easily accessible
 105 and safe place.

I am aware that so-called water towers for fire fighting purposes are known per se in the art and that minor structural details
 110 as e. g. worm gears, levers, screw spindles,

etc., have already been used for turning the pipe section and nozzle section of water towers.

5 It is obvious to those skilled in the art that various changes in the size, shape, proportion and minor details of construction may be resorted to without departing from the spirit and the leading ideas of my invention.

10 What I claim as new in my invention and desire to protect by Letters Patent is:

15 In a water tower, service pipes, a water chamber into which said pipes lead, a discharge pipe having its lower end opening into the water chamber, means for supporting the discharge pipe to permit its rotation relative to the service pipes, a spindle se-

cured to the discharge pipe within the water chamber, manually operable means arranged below the water chamber for rotating the 20 spindle and thereby the discharge pipe, a nozzle carried by the upper end of the discharge pipe and mounted for swinging about a horizontal axis, a sleeve slidably mounted on the discharge pipe and connected to the 25 nozzle, and manually operable means arranged below the water chamber for moving the sleeve vertically of the discharge pipe and thereby adjusting the nozzle on its horizontal axis. 30

In testimony whereof I have signed my name to this specification.

JAKOB ZEITTER.