H. H. GORTER.
PORTABLE WATER TOWER AND FIRE ESCAPE.
APPLICATION FILED MAY 20, 1901.
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INVENTOR

Witnesses
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PORTABLE WATER-TOWER AND FIRE-ESCAPE.


Application filed May 20, 1901. Serial No. 61,190. (No model.)

To all whom it may concern:

Be it known that I, HENRY H. GORTER, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful improvements in Portable Water-Towers and Fire-Escapes, of which the following is a specification.

My invention relates to improvements in struts or side braces used on portable water-towers and fire-escapes to increase stability when elevated in action, said stability being ordinarily limited by the allowable width of wheel-base of the apparatus.

The object of my invention is to provide braces that will be self-sustaining and rigid when connected up and whose usefulness does not depend on their adaptability of being driven in the ground, such braces proving useless when applied to a cement sidewalk or other hard covering on the public thoroughfare. I attain this object by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 shows my improved brace as applied to my water-tower, which was fully described in Patent No. 645,470 and shows the way it is carried when not in use. Fig. 2 shows a sectional view of the means employed to stretch or set up the connecting-cables. Fig. 3 shows a rear view of a section of the tower with the braces set up and connected ready to support.

Similar letters refer to similar parts throughout the several views.

The rod $a$ swivels by means of jaws $p$ on bolt $b$, which itself is revolvably mounted in journal $c$, placed below the fulcrum $q$ of the mast $z$ of the tower. These two swivel connections are axially at right angles to each other, whereby allowing said rod $a$ to move in all directions. The rod $a$ is provided with a screw-thread $z$ of suitable length, in which is cut a groove $g$. On this screw-thread $z$ travels a nut $h$, having handles $l$ for turning it. This nut $h$ is revolvably connected to a sleeve $k$, on which are two eye-rings $s$ and $s'$. A set-screw $j$ is screwed in sleeve $k$ and fits loosely in the groove $g$, allowing the sleeve $k$ to move up and down on the rod $a$, but preventing all rotary movement of same. The rod $a$ carries, further, near its loose end a bracket $y$, from which swing two legs or standards $i$ and $i'$. These are connected near their middle by a short length of chain or wire rope $v$, allowing them to open a suitable distance only, thus forming an A-frame.

To the frame of the tower and at a suitable depth below the connecting-point $b$ of rod $a$ are fastened two eye-bolts $d$ and $d'$, preferably 50 equal distance apart horizontally from said connecting-point $b$ of rod $a$. Fastened to said eye-bolts $d$ and $d'$ are suitable lengths of chain or wire rope $r$ and $r'$, having a hook $m$ on the other end, adapted to engage with eye-rings $s$ and $s'$ on sleeve $k$. The forward wire rope $r'$ may also be permanently connected with said rod $a$.

For the purpose of supporting the free end of rod $a$ when not required for use the frame of the tower is provided with a saddle or fork end $e$.

It will be seen that the parts of the frame to which the strut or rod $a$ and links $r$ and $r'$ are connected constitute a rigid frame wide at the base and narrow at the top, that the strut $a$ is jointed to the top of said frame, and that the frame, struts, and links are substantially tetrahedral in arrangement.

To operate my device, lift rod $a$ out of saddle $e$, swing said rod $a$ around till the forward wire rope $r'$ is tight, allowing legs $i$ and $i'$ to swing downward and opening said legs $i$ and $i'$ as far as the chain $v$ will permit, letting them rest on the ground in that position, after which connect chain or wire rope $r$ to eye-ring $s$ on sleeve $k$. If now nut $h$ is turned by means of handles $l$, so as to force out sleeve $k$, it will tighten the wire ropes $r$ and $r'$ and press the rod $a$ downward on compass-legs $i$ and $i'$, thus forming a rigid brace against capsizing of apparatus.

I do not particularly claim the device for tightening of wire ropes $r$ and $r'$ as placed on rod $a$. This is my preferred construction.

Similar devices may be placed on frame of tower and connected to the wire ropes, producing like results; but, having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a portable water-tower, the combina-
tion of a rigid frame, having a wide base and a narrow top, of a strut jointed to the top of said frame, and two links attached to the opposite ends of the base of the frame, the other ends of said links being attached to said strut at a lower portion thereof, said frame struts and links, being thus substantially tetrahedral in arrangement, substantially as described.

2. In a portable fire-extinguishing apparatus, the combination with the frame, of a strut jointed thereto, links connecting the lower part of said strut with said frame below said joint at points at a distance from each other, a nut on said strut to which the ends of said links are attached, said nut when turned operating to tighten said links, and means for turning said nut, substantially as described.

3. In a portable water-tower, the combination with the frame, of a strut jointed on said frame, compass legs pivoted on said strut near the free end thereof, connecting-links attached to said strut and to the frame of the tower below said joint, and means for tightening said connecting-links, substantially as described.

In testimony whereof I have hereunto set my hand this 14th day of May, 1901.

HENRY H. GORTER.

Witnesses:
Jos. Fendergast,
Charles F. Healey.