

D. W. ADAMS.
SHOULDER BAG WATER SPRAYING APPARATUS.
APPLICATION FILED DEC. 17, 1910.

1,003,855.

Patented Sept. 19, 1911.

Fig. 1.

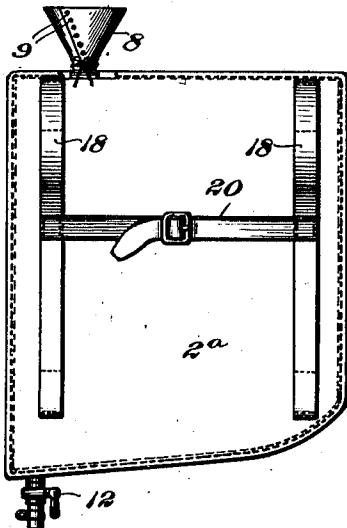


Fig. 2.

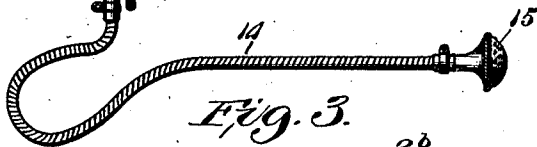
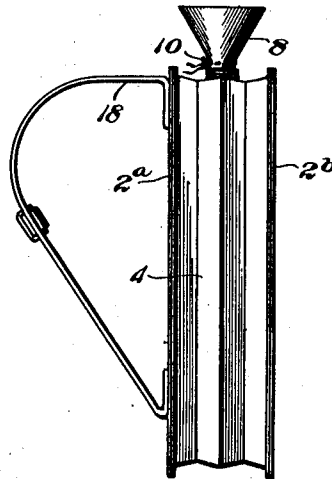


Fig. 3.

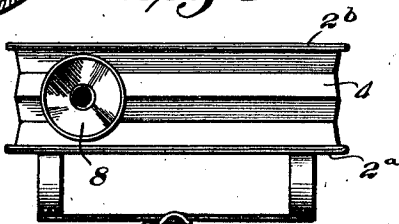


Fig. 5.

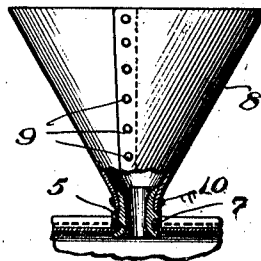


Fig. 4.

Fig. 7.

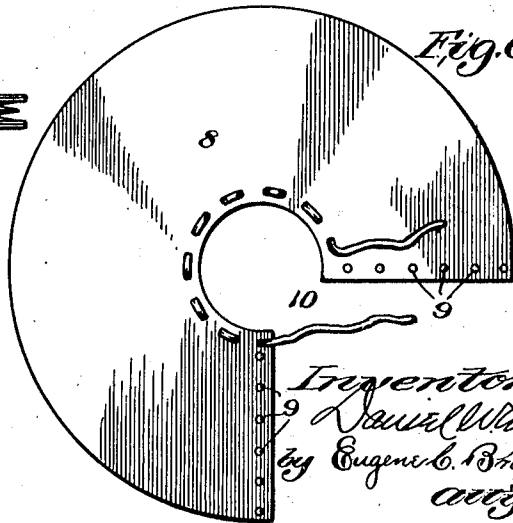
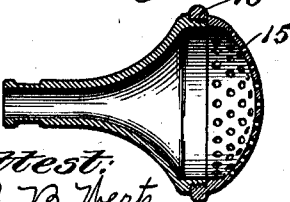


Fig. 6.

Attest:
A. B. Thert
Henry E. Lumber

Inventor:
David W. Adams
by Eugene C. Brown
att'y.

UNITED STATES PATENT OFFICE.

DANIEL W. ADAMS, OF GLENDALE SPRINGS, NORTH CAROLINA.

SHOULDER-BAG WATER-SPRAYING APPARATUS.

1,003,855.

Specification of Letters Patent. Patented Sept. 19, 1911.

Application filed December 17, 1910. Serial No. 597,801.

To all whom it may concern:

Be it known that I, DANIEL W. ADAMS, a citizen of the United States, residing at Glendale Springs, in the county of Ashe and State of North Carolina, have invented new and useful Improvements in Shoulder-Bag Water-Spraying Apparatus, of which the following is a specification.

My invention relates to improvements in water-bags adapted to be carried upon the back of a person, having supporting shoulder-straps, and provided with a hose and nozzle by which a stream may be directed upon a fire or for other purposes.

This apparatus is especially intended for use in extinguishing forest fires which spread rapidly along the ground in the underbrush, dry leaves and grasses. Equipped with this outfit, the forest ranger may apply a stream or spray of water directly to the ground or surface fire most effectively as he walks to the very edge of the burning embers.

I am aware of the fact that other shoulder water-bags have been devised, but there has been no provision by which they are enabled to expand during the operation of filling and permitting them to be collapsed into a compact form when not in use. These and other objects are attained by means of apparatus hereinafter described and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of an apparatus embodying my invention; Fig. 2 is an end elevation, and Fig. 3 is a top plan view of the same, showing the bag as it appears when expanded or filled; Fig. 4 is a top plan view, showing the bag collapsed; Fig. 5 is a side elevation, partly in section, showing the developable funnel and the funnel-support or mouth-piece; Fig. 6 is a plan view of the funnel when developed and flattened; and Fig. 7 is a longitudinal section of the spray nozzle.

The water-bag is preferably constructed of waterproof canvas having stiff front and back members or canvas plates 2^a, 2^b, which are sufficiently firm to maintain their proper shape. In order that the bag may expand as it is being filled with water and be collapsed into a small compass when it is empty, I connect the front and rear frame members by intermediate flexible canvas bellows folds 4, having each of the four sides formed into accordion plaiting. At

an intermediate point, and preferably midway between the side plates, I insert a funnel-support or mouth-piece 5, which may be secured by means of a tie-wire 7, binding the edges of the canvas surrounding the aperture into an annular groove. While I prefer to construct the mouth-piece of resinous wood, it may be made of other material. The rigid mouth-piece inserted in the flexible canvas bellows folds portion, insures a free open inlet at all times for the filling of the bag, and the entering water immediately expands the bag, whereas if the mouth-piece were flexible and could collapse, considerable difficulty would be experienced in the filling operation, causing considerable annoyance and serious delay.

In order that the apparatus may be exceedingly compact when not in use, I also provide a funnel 8 which may be developed and flattened when not in use into the form shown in Fig. 6. The funnel is formed from an integral piece of leather, and the edges which are brought together when ready for use are provided with snap or glove fasteners 9. The apex of the funnel is placed over the mouth-piece and secured in position by means of a raw-hide lacing or draw-string 10.

The outlet connection is provided with a cut-off valve 12, and is connected to a hose 14 having a spray nozzle 15, which is preferably provided with a screw joint 16, to facilitate cleaning in case the nozzle becomes clogged.

In order that the carrier may be able to easily reach the cut-off valve and that the hose may be as short as possible, I slope the bottom of the bag toward one corner, to which the discharge outlet is connected. In the arrangement illustrated, the cut-off valve would be within easy reach of the right hand of the carrier and the hose would pass directly along his right side when the nozzle is held in the right hand. Supporting straps 18, secured to the front plate, pass around the shoulders of the carrier and are held in position by the breast strap 20.

The operation of the apparatus will be apparent from the foregoing description. When the apparatus is not in use, the front and rear members are pressed together, forcing the intermediate bellows fold portion into the folded position shown in Fig. 4, and the funnel may be flattened as in Fig. 6, so the entire apparatus may be formed

into a compact bundle and placed behind the saddle of a forest ranger.

The many advantages to be derived from the use of my apparatus will be apparent to those who have had experience in fighting forest fires.

While I have described in detail the apparatus disclosed in the accompanying drawings for the purpose of disclosing one embodiment of my invention, it will be evident that many changes may be made therein without departing from the spirit of my invention or from the scope of my claims, which are—

1. A shoulder-bag spraying apparatus, comprising a substantially rectangular water-proof bag having stiff front and rear walls and a collapsible intermediate portion closing all sides of the bag, a rigid funnel-support and a discharge connection secured respectively in the top and in the bottom of said intermediate portion, and a developable funnel detachably mounted upon said funnel-support.

2. A shoulder-bag spraying apparatus, comprising a closed water-proof bag having stiff front and rear walls and a collapsible

intermediate portion, the bottom of the bag sloping toward one side, and a rigid funnel-support and a valved discharge connection secured respectively in the top and in the bottom of said intermediate portion, said discharge being located at the lower side thereof.

3. A shoulder-bag spraying apparatus, comprising a water-proof bag having stiff front and rear walls and a collapsible intermediate portion, the bottom of the bag sloping toward one side, a rigid funnel-support and a valved discharge connection secured respectively in the top and in the bottom of said intermediate portion, said discharge being located at the lower side thereof, a hose connected to said discharge connection, and shoulder-straps secured to the front wall of the bag.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

DANIEL W. ADAMS.

Witnesses:

R. F. GROVER,

J. FLOYD WYATT.