

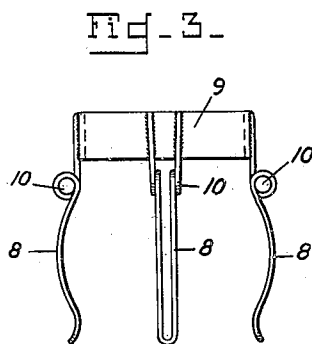
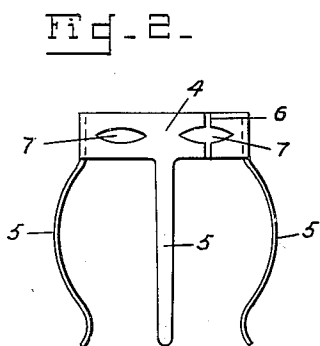
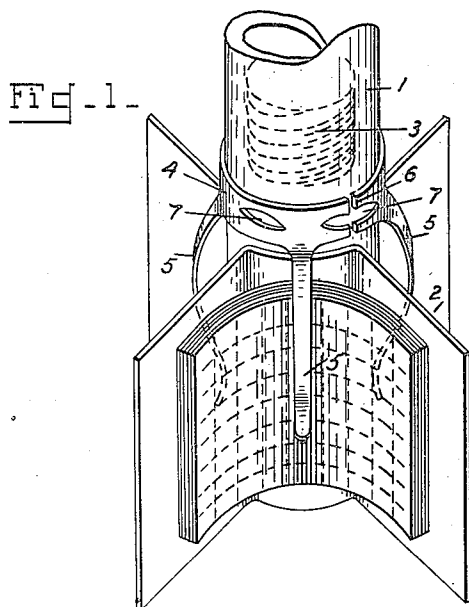
March 13, 1945.

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2,371,139

PROPELLENT CHARGE HOLDER

Filed Nov. 8, 1941



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UNITED STATES PATENT OFFICE

2,371,139

PROPELLENT CHARGE HOLDER

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Application November 8, 1941, Serial No. 418,347

6 Claims. (Cl. 102—49)

(Granted under the act of March 3, 1883, as amended April 30, 1928; 370 O. G. 757)

The invention described herein may be manufactured and used by or for the Government for governmental purposes, without the payment to me of any royalty thereon.

This invention relates to propellant charge holders and in particular to a charge holder for the external charge increments in the mortar type of shell.

In the types of mortar shells now in use an igniting charge is carried in the tail and axuiliary charges are carried externally of the tail, usually by the stabilizing vanes. It has been proposed to carry such charges by means of a spring clip fastened to the projectile tail. The present invention is directed to a device providing for a plurality of spring clips carried by a member adapted to encircle the tail piece of a projectile and hence provide simplicity of installation as well as providing a device which may be easily adapted to shells already fabricated. The holder of the invention may be installed at any time up to the time of firing.

It is therefore an object of the invention to provide a unitary assembly for spring clips for propellant charges.

The specific nature of the invention as well as other objects and advantages thereof will clearly appear from a description of a preferred embodiment as shown in the accompanying drawing in which:

Figure 1 is a perspective view of the tail portion of a vanned mortar shell showing the spring clip unit in place and holding a sheet charge.

Figure 2 is a front view of the clip unit, and

Figure 3 is a front view of a modified clip.

Referring to the drawing by characters of reference, there is shown a portion of a projectile tail 1 and a vane assemblage 2 fastened thereto by screw threads 3. The fastener comprises a ring member 4 and spring clips 5 depending therefrom shown as integral therewith, but which may be attached thereto. The ring member is easily applied by slipping it over the vane assemblage before screwing the same onto the projectile tail, or if left open as at 6, may be sprung around the tail. Openings 7 will serve to increase the resiliency. With a fastener of this type, manufacture is considerably simplified, since instead of fabricating and attaching individual fasteners for each

charge unit, a fastener to accommodate all charges is produced by such simple operations as a single stamping and a bending, and for mounting requires little in addition to the usual step of screwing on the vane assemblage.

Likewise, the fasteners may be stamped in long strips and individual units cut therefrom and bent to circular shape.

In Figure 3 is shown a fastener having modified clips comprising spring wire 8 bent to U-shape with its ends fastened to the ring 9 and having loops 10 for increasing the resiliency of the clips.

I claim:

1. In combination with the tail portion and vane assemblage of a projectile, a ring surrounding said tail portion and having an elongated finger of resilient material extending between the vanes and adapted to grip and hold a propellant charge between the vanes.

2. In combination with the tail portion and the vane assemblage of a trench mortar projectile, a ring of resilient material surrounding said portion and provided at intervals with elongated integral fingers whose ends are in resilient substantially contacting relation with said tail portion and adapted to grip and hold a propellant charge for the projectile.

3. In combination with the tail portion of a trench mortar projectile, a ring of resilient material surrounding said portion and having arranged at intervals a plurality of resilient fingers adapted to grip and removably hold a propellant powder charge on said tail portion.

4. In combination with the tail portion and vane assemblage of a trench mortar projectile, a ring of resilient material surrounding said tail portion and having arranged at intervals a plurality of elongated resilient fingers extending between said vanes and adapted to grip and removably hold a propellant powder charge between said vanes.

5. The invention of claim 4 characterized in that the ring is split and adapted to frictionally grip the tail portion of the projectile.

6. The invention of claim 4 characterized in that the spring fingers are provided with a loop adjacent the ring to increase the resiliency of said fingers.

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