Nov. 10, 1942. P. J. PEARSON 2,301,789

HARPOON GUN

Filed May 22, 1941 3 Sheets-Sheet 1

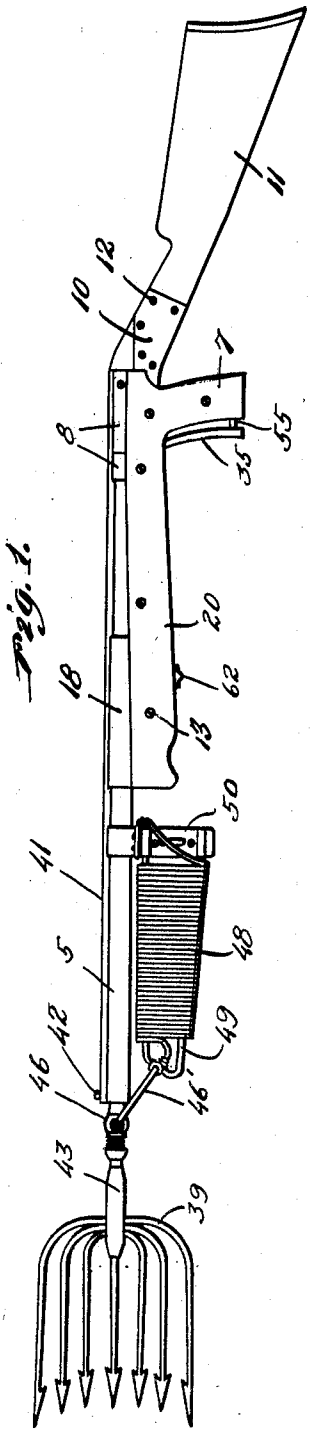


Fig. 1.

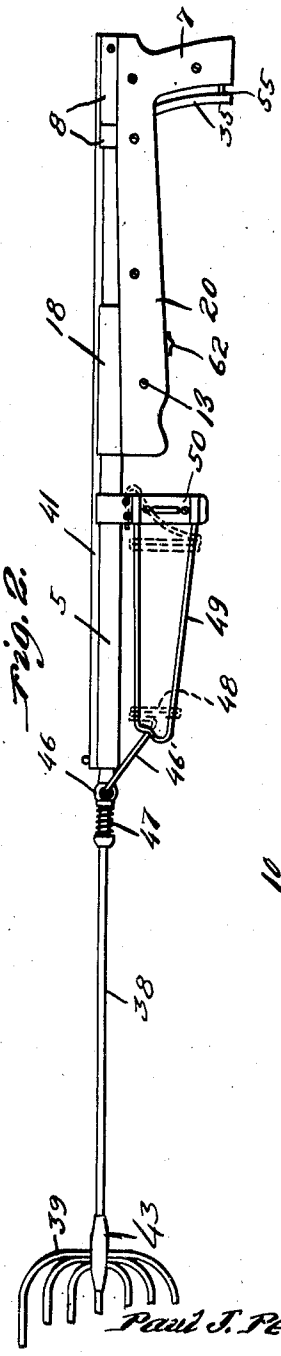


Fig. 2.

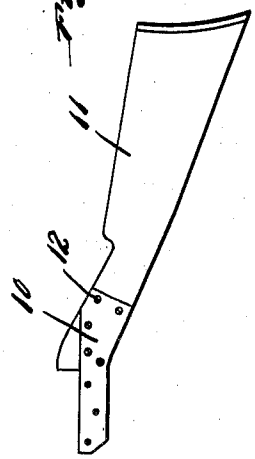


Fig. 3.

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HARPOON GUN

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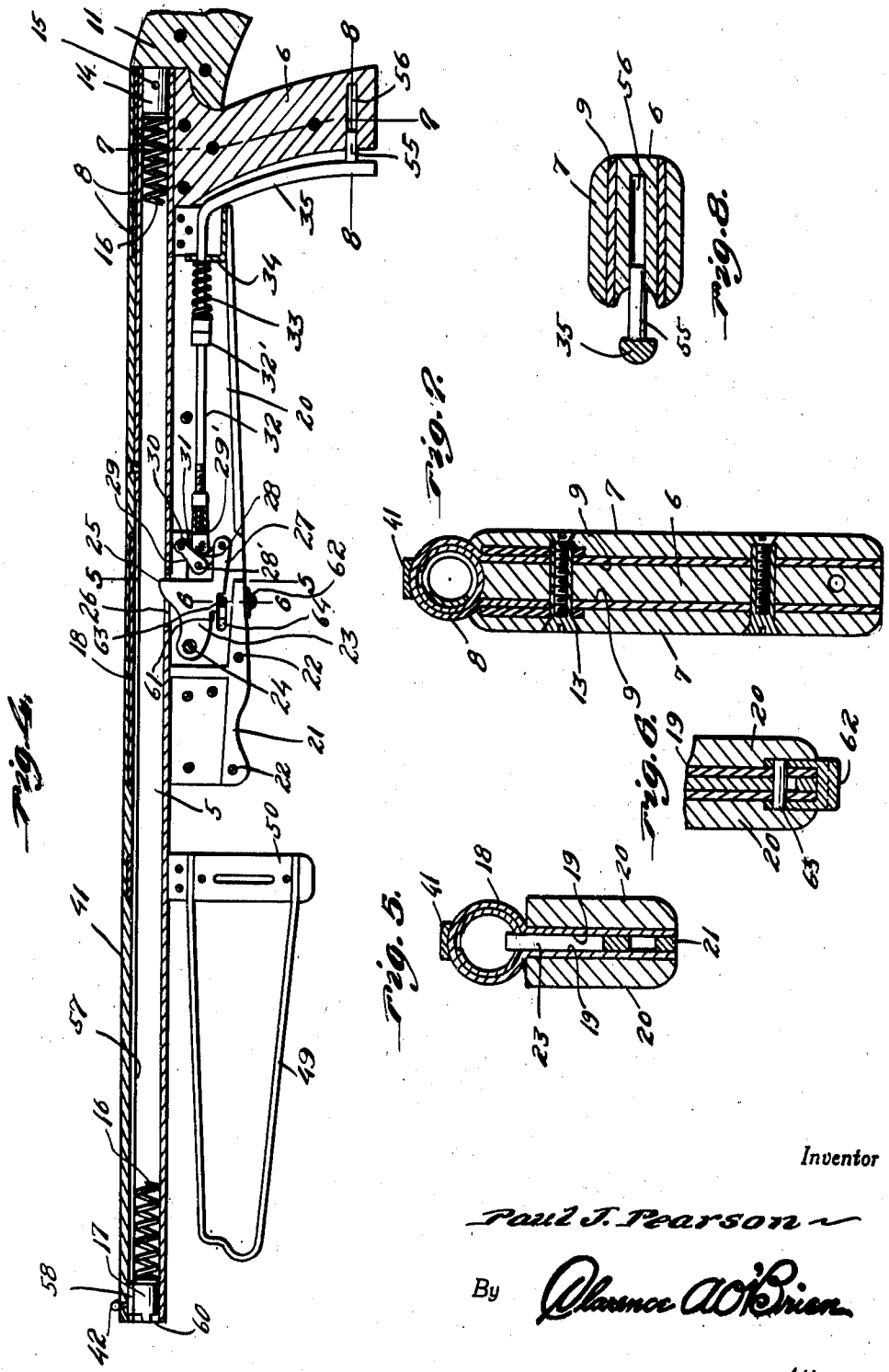


Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

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HARPOON GUN

Filed May 22, 1941 3 Sheets-Sheet 3

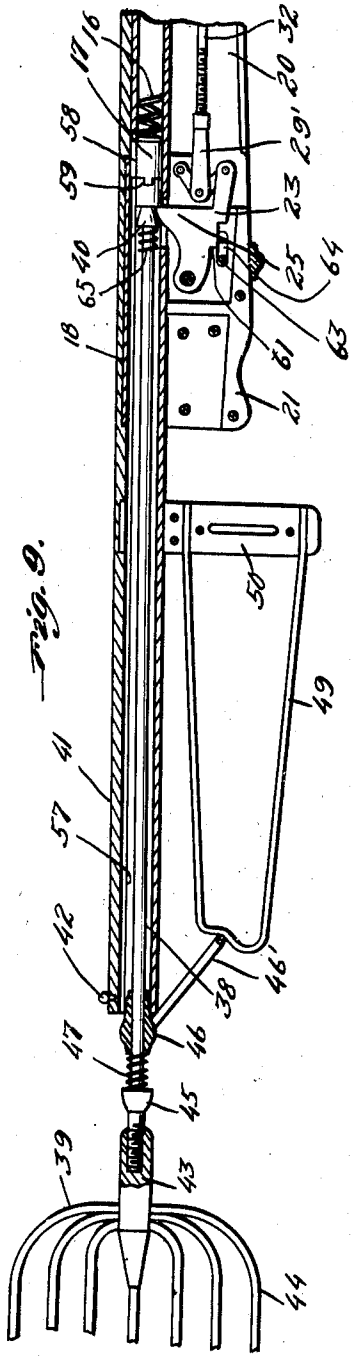


Fig. 9.

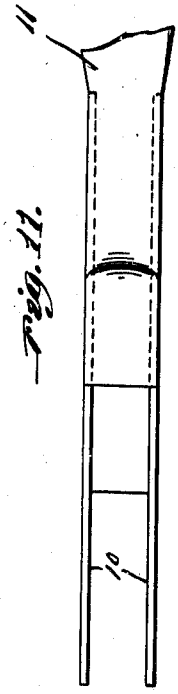


Fig. 11.

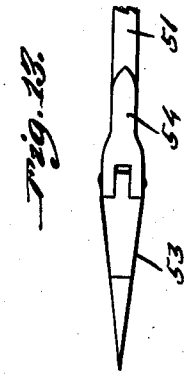


Fig. 12.

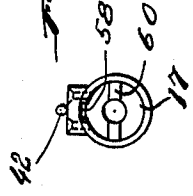


Fig. 10.

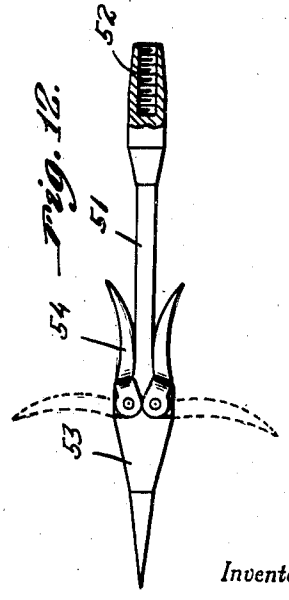


Fig. 13.

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UNITED STATES PATENT OFFICE

2,301,789

HARPOON GUN

Paul J. Pearson, Pontiac, Mich.

Application May 22, 1941, Serial No. 394,726
In Canada December 19, 1940

5 Claims. (Cl. 124—27)

This invention appertains to new and useful improvements in harpoons and guns therefor.

The principal object of the present invention is to provide a harpoon gun for shooting harpoons accurately and with considerable force through agency other than explosive means.

Another important object of the invention is to provide a harpoon gun which can be readily taken apart for the purpose of repair or replacement of parts.

Still another important object of the invention is to provide a harpoon gun which is provided with both a hand grip and a shoulder stock and wherein the shoulder stock can be removed whenever personal discretion demands.

Various other important objects and advantages of the invention will become apparent to the reader of the following specification.

In the drawings:

Figure 1 represents a side elevational view of the gun with a harpoon inserted therein.

Figure 2 is a similar view with the stock removed and showing the harpoon in extended position.

Figure 3 is a side elevational view of the stock removed from the gun.

Figure 4 is a fragmentary longitudinal sectional view through the gun.

Figure 5 is a cross section on the line 5—5 of Figure 4.

Figure 6 is a transverse sectional view through the safety, and taken on a line 6—6 of Figure 4.

Figure 7 is a transverse sectional view taken on a line 7—7 of Figure 4.

Figure 8 is a sectional view through the pistol grip taken on a line 8—8 of Figure 4.

Figure 9 is a fragmentary longitudinal sectional view through the gun.

Figure 10 is an end elevational view of the barrel.

Figure 11 is a fragmentary top plan view of the stock.

Figure 12 is a side elevational view of one form of harpoon, and

Figure 13 is a fragmentary top plan view of the harpoon shown in Figure 12.

Referring to the drawings wherein like numerals designate like parts, it can be seen that the elongated barrel is denoted by the numeral 5. At the butt end of the barrel is the handle structure which is made up of the intermediate member 6 and the two side members 7—7. Bands 8—8 are disposed over the barrel 5 and have tail portions 9—9 which extend downwardly between the side members 7 of the handle and the intermediate member 6 and on the inner side portions of the forwardly projecting plates 10—10 carried by the stock 11. These plates being secured by rivets or the like 12 to the said stock. Removable bolt or screw means 13 is disposed through the side members 7 of the handle and the intermediate portion 6 and also through the tail portions 9 and plates 10 to hold these parts firmly together. Obviously, by removing the bolt and screw means 13 the stock 11 can be removed whenever desired when just the handle grip is desired for use, or where repair or replacement of parts is required.

In the butt end of the barrel 5 (see Figure 4) is the plug 14 secured in place by the bolt 15 which also extends through the bands 8 and attached to this plug 14 is the elongated compressible spring 16 which at its forward end carries the follower block 17.

The band 18 embraces the intermediate portion of the barrel 5 and has depending flange portions 19—19 against which the forward hand grip side pieces 20—20 are disposed. Between the lower portions of the flanges 19—19 is disposed the spacer strip 21 and through this spacer strip 21, and flanges 19, are disposed the securing rivets 22.

A swingable trigger plate 23 fulcrumed as at 24 between the flanges 19—19 has the shoulder portion 25 operative through the opening 26 in the bottom portion of the barrel 5. A short arm 27 extends rearwardly from the lower portion of the trigger plate 23 and from this extends the pivotal link 28 which is connected by a pivot pin 28' to the pivotal link 29, the latter being pivotally secured as at 30 to the block 31. Also pivoted on the pin 28' is a yoke 29' threaded on one end of a rod 32 which extends rearwardly through a bracket 34 and then downwardly as at 35 in spaced relation in advance of the hand grip 7. A coil spring 33 is mounted on the rod 32 with one end abutting the bracket 34 and tensionally abutting at its other end against adjusting nuts 32', threaded on the rod for the purpose of normally maintaining the parts in the positions shown in Figure 4 with the shoulder portion of the plate 23 urged upwardly through the opening 26. Obviously, when the shaft 38 of a harpoon generally referred to by numeral 39 is disposed in the barrel and forced inwardly so as to compress the spring 16, the head 40 of the harpoon shaft will engage behind the shoulder 25 of the trigger plate 23 and remain in this position until the portion 35 of the trigger operating rod 32 is pulled backwardly, to release the shoulder 25

from the head 40, whereupon the force of the spring will expel the harpoon with considerable force.

Along the top of the barrel and the bands 18 and 8 is disposed the bead strip 41 which can have a bead 42 at its forward end.

The harpoon is preferably of the type consisting of the forward body 43 having a threaded socket therein for receiving the forward end of the shaft 38 and this body portion 43 has a plurality of tines 44, preferably barbed projecting therefrom. The forward portion of the shaft 38 has the shoulder 45 between which and the slidable collar 46 is interposed the compression spring 47. Extending from the slidable collar 46 is a swingable bail 46' to which the line 48 is attached and which is coiled around the tapered frame 49. This frame is of U-shaped wire with the ends of its leg portions secured within the confines of the depending leg portions 50 of the bracket band which embraces the barrel 5. The frame 49 tapers forwardly so that the line can easily pay therefrom as the harpoon is projected.

Another form of harpoon is shown in Figures 12 and 13 wherein the shaft section 51 has the socket 52 therein for an elongated shaft. This section 51 has the tapered head 53 and the swingable barbs 54 carried thereby.

As shown in Figure 4, a pintle 55 extends rearwardly from the downwardly curved portion 35 of the rod 32 and is slidably disposed in the small bore 56 in the lower portion of the section 6 of the hand grip.

The barrel 5 is provided with a longitudinally extending slot along its top and under the bead strip 41 and the follower block 17 is provided with a lug 58 which slides in the slot to prevent rotation thereof when the harpoon is released. Likewise the head 40 is provided with a cross-slot 59 for receiving a tongue 60 on the follower block 17 to prevent rotation of the harpoon.

A safety 62 is provided for the trigger plate 23 and comprises a U-shaped slide positioned beneath the side pieces 20 with its ends projecting upwardly between the pieces 20—20, as shown in Figure 6, and having a pin 63 slidable in a slot 64 formed in the flanges 19. The pin is movable against a shoulder 61 on the lower edge of the plate 23 to prevent downward swinging movement of said plate.

A small coil spring 65 is freely mounted on the shaft 38 between the head 40 and the slidable collar 46 to act as a shock absorber for the collar when the harpoon is released.

While the foregoing specification sets forth the invention in specific terms, it is to be understood that numerous changes in the shape, size and materials may be resorted to without departing from the spirit and scope of the invention as claimed hereinafter.

Having thus described the invention, what I claim is:

1. A harpoon gun comprising a barrel having a longitudinal slot, said barrel being adapted to receive a harpoon shaft, a spring projected follower in the barrel engaging the shaft to discharge the latter, a lug on the follower slidable in the slot to prevent rotation of the follower and means connecting the shaft with the follower to secure the shaft against rotation.

2. A harpoon gun comprising a barrel having a stock, a swingable trigger plate having a shoulder, said barrel having an opening through which the shoulder portion of the plate is laterally operative, a harpoon projecting spring in the barrel, a pressure member adjacent the stock, and connecting means between the pressure member and the trigger plate for releasing the trigger plate from a position in the barrel when the pressure member is pressured toward the stock, and a safety device including a slidably mounted member extending transversely beneath the trigger plate to secure the plate inactive.

3. A harpoon gun comprising a barrel having a longitudinal slot, a spring projected member in the barrel and a lug on the member slidable in the slot to prevent rotation of the member during longitudinal movement thereof in the barrel and a sighting strip on the barrel and covering said slot.

4. A harpoon gun comprising a barrel having a stock, said barrel also being provided with a lateral opening, a swingable trigger plate having upper and lower shoulders, the upper shoulder being projected into the opening, and engageable with a projectile in the barrel to retain the projectile in its retracted position, trigger plate releasing means carried by the stock and a safety member extending transversely beneath the lower shoulder of the trigger plate and movable into and out of engagement therewith.

5. A harpoon gun comprising a barrel having a stock, said barrel being adapted to receive a harpoon shaft, a spring projected follower in the barrel behind the shaft, said barrel having a longitudinal slot and said follower having a lug slidable in the slot to prevent rotation of the follower and interengaging means between the shaft and the follower to prevent rotation of the harpoon.

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