April 15, 1941. P. J. PEARSON 2,238,504

HARPOON GUN

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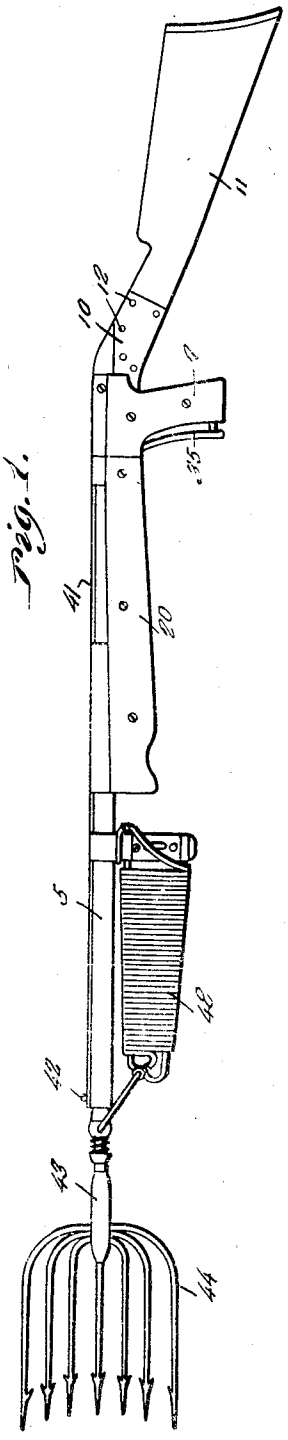



Fig. 1.

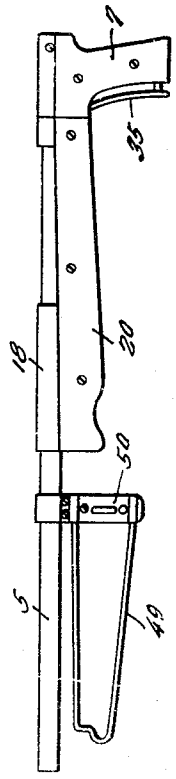



Fig. 2.

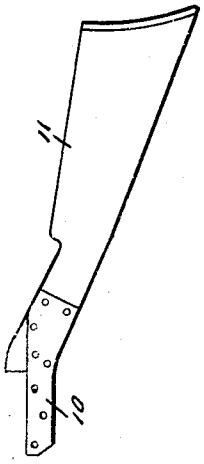



Fig. 3.

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HARPOON GUN

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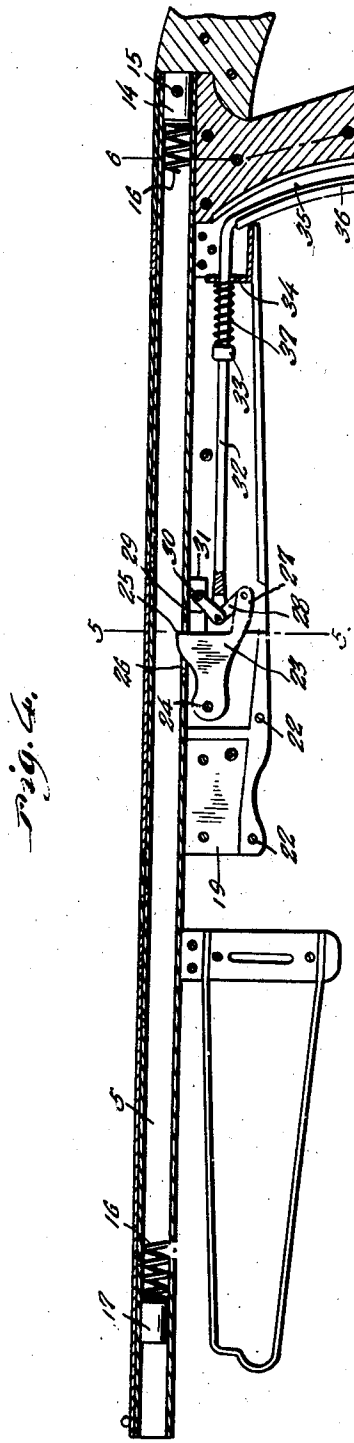


Fig. 4a.

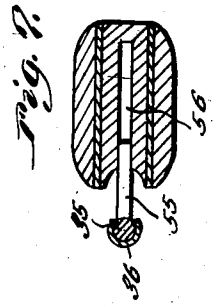


Fig. 4.

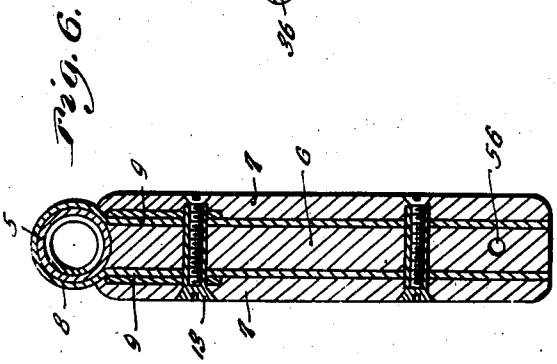


Fig. 6.

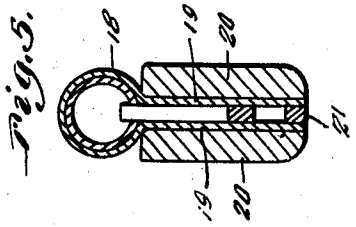


Fig. 5.

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HARPOON GUN

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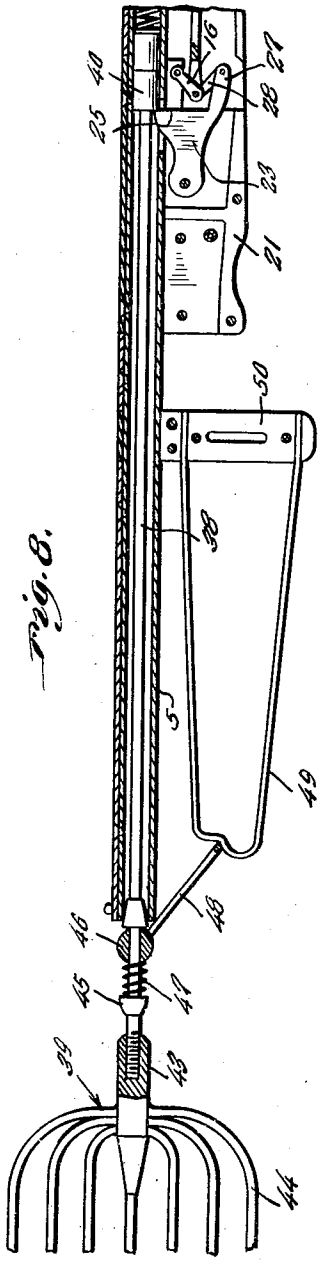



Fig. 8.

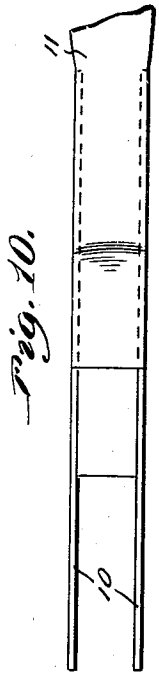



Fig. 10.

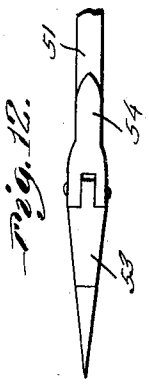



Fig. 12.

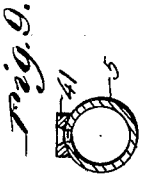



Fig. 9.

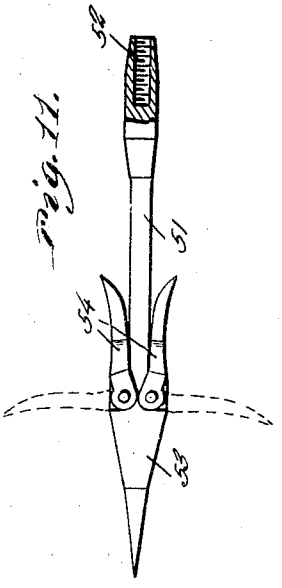



Fig. 11.

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Patented Apr. 15, 1941 2,238,504

# UNITED STATES PATENT OFFICE

2,238,504

## HARPOON GUN

Paul J. Pearson, Pontiac, Mich.

Application August 17, 1939, Serial No. 290,699

3 Claims. (Cl. 43—6)

This invention appertains to new and useful improvements in harpoons and guns therefor, the present application being a continuation in part of my co-pending application Serial No. 210,995, filed May 31, 1938.

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 side elevational view of the gun stripped of its stock and bead strip.

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 cross section on the line 6—6 of Figure 4.

Figure 7 is a cross sectional view of the handle taken substantially on the line 7—7 of Figure 4.

Figure 8 is a fragmentary longitudinal sectional view through the gun.

Figure 9 is a cross sectional view through the barrel.

Figure 10 is a fragmentary top plan view of the stock.

Figure 11 is a side elevational view of one form of harpoon.

Figure 12 is a fragmentary top plan view of the harpoon shown in Figure 11.

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. A band 8 is disposed over the barrel 5 and has the 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. The stock 11 will be preferred when distance shooting is required. In some instances, a harpooner may prefer the stock removed for all characters of harpoon work. The stock of course steadies the gun in aiming for distance but is not absolutely necessary in close quarters work.

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 band 8 and attached to this plug 14 is the elongated compressible spring 16 which at its forward end carries the follower block 17.

A 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, flanges 19 and grip pieces 20 are disposed the securing bolts 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 to the pivotal link 29, the latter being pivotally secured as at 30 to the block 31. A rod 32 has its forward end pivotally connected to the links at the point where they are pivotally connected together and this rod extends backwardly through the guide 33 and through the bracket 34, this rod having the downwardly curved hand grip portion 35 having the same curvature as the forward portion of the aforementioned hand grip.

A semi-cylindrical tube 36 is disposed and suitably clinched against the forward side portion of the downwardly curved end portion 35 of the rod 32 so as to somewhat broaden the hand contact side of the rod. A coiled compression spring

37 is interposed between the bracket 34 and the guide 33 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 to facilitate aiming.

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 head 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 the line 48 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 11 and 12 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.

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 described the invention, what is claimed as new is:

1. A harpoon gun comprising a barrel having a hand grip and projecting means therein, and a removable stock for the barrel adapted to be used in conjunction with the hand grip, and a harpoon line reel comprising a substantially U-shaped and longitudinally tapered frame, and attaching means between the frame and the barrel.

2. A harpoon gun comprising a barrel having a hand grip and projecting means therein, and a removable stock for the barrel adapted to be used in conjunction with the hand grip, and a bead strip extending longitudinally of the barrel.

3. A harpoon gun comprising an elongated barrel, holding means at one end of the barrel, a follower in the barrel, spring means for projecting the follower forwardly in the barrel, a swingable trip member constructed to define a shoulder, said barrel having an opening therein through which the shoulder portion of the trip is operative, an elongated trigger rod having a pressure plate at the holding means end thereof, said swingable trip being further formed to define a rearwardly extending arm and an expansible link assembly interposed between the barrel and the arm and having the trigger rod pivotally connected thereto.

PAUL J. PEARSON.