Aug. 27, 1940. R. H. S. HUGHES 2,212,684

RECOIL CONTROLLING DEVICE

Filed March 6, 1937

Fig. 1.

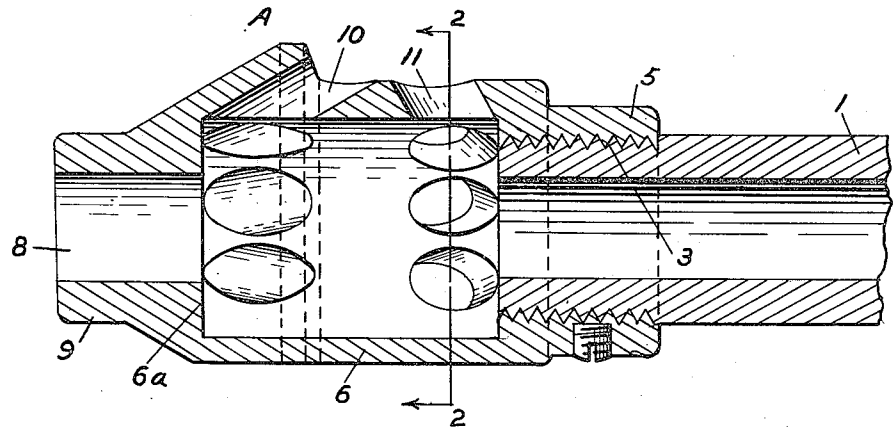
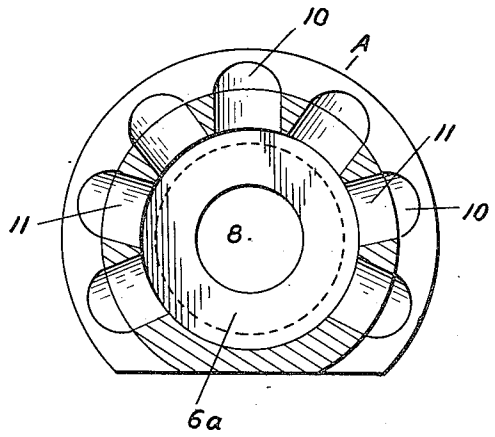


Fig. 2.



INVENTOR.
Robert H. S. Hughes.
BY
Robert Watson
Attorney

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RECOIL CONTROLLING DEVICE

Robert H. S. Hughes, Baltimore, Md., assignor of one-half to Milton Roberts, Baltimore, Md.

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2 Claims. (Cl. 89—14)

This invention relates to a recoil controlling device for guns adapted to fire projectiles. The device comprises a body which may be suitably attached to the muzzle end of a gun barrel, said body having a cylindrical gas chamber therein and having an inlet portion and a seal port at the rear and forward ends of said chamber, respectively, and a shoulder extending laterally from the inner end of the seal port to the side wall of the chamber, said device having a plurality of discharge ports extending rearwardly and outwardly from the forward part of the chamber, adjacent the shoulder therein, whereby the gasses issuing from said discharge ports and reacting against said shoulder minimize recoil when the gun is fired. A series of baffle ports extend through the side wall of the chamber between the inlet end of the chamber and the rearward ends of the discharge ports, and these baffle ports are inclined forwardly and outwardly and intercept the products of combustion issuing from the discharge ports thereby minimizing blast against the operator of the gun.

In the accompanying drawing,

Fig. 1 is a central longitudinal section through the muzzle end of a gun barrel and through the recoil controlling device mounted thereon, and

Fig. 2 is a transverse section through said device on the line 2—2 of Fig. 1.

Referring to the drawing, 1 indicates the muzzle end of a gun barrel the bore of which is indicated at 2, and A indicates the recoil device, mounted on the barrel. The body 6 of the recoil device is formed with a cylindrical gas chamber 7 and with a collar 5 at one end which forms an inlet to the chamber and a means for attaching the device to a gun barrel. The barrel is shown with external threads 3, and the collar has internal threads which engage the threads on the barrel. A seal port 8 extends from the forward end of the gas chamber through a cylindrical port 9 at the forward end of the body, the seal port being in axial alinement with the collar and also with the bore of the barrel. An annular shoulder 6a extends from the inner end of the seal port to the side wall of the chamber, and a plurality of discharge ports 10, in an arcuate series, extend rearwardly and outwardly from the forward part of the chamber adjacent said shoulder. A plurality of baffle ports 11, in a similar series, extend through the side wall of the chamber at the rear of the discharge ports, the baffle ports inclining forwardly and outwardly.

When the gun is fired recoil is minimized by the discharge of the products of combustion through the discharge ports 10 and the reaction against the shoulder 6a. The discharge from these ports is intercepted by the discharge from the forwardly inclined baffle ports and thereby blast against the operator of the gun is minimized.

What I claim is:

1. A recoil controlling device for guns adapted to fire projectiles, comprising a body adapted for attachment to the muzzle of a gun barrel, said body having a cylindrical gas chamber therein and having an inlet port and a seal port at the rear and forward ends of said chamber, respectively, and a shoulder extending laterally from the inner end of the seal port to the side wall of the chamber, said device having a plurality of discharge ports extending rearwardly and outwardly from the forward part of the chamber, adjacent the shoulder therein, and a series of baffle ports extending through the side wall of the chamber between the inlet end of the chamber and the rearward ends of said discharge ports, said baffle ports being inclined forwardly and outwardly.

2. A recoil controlling device for guns adapted to fire projectiles, comprising a body adapted for attachment to the muzzle of a gun barrel, said body having a cylindrical gas chamber therein and having an inlet port and a seal port at the rear and forward ends of said chamber, respectively, and a shoulder extending laterally from the inner end of the seal port to the side wall of the chamber, said device having an arcuate series of discharge ports extending rearwardly and outwardly from the forward part of the chamber, adjacent the shoulder therein, and an arcuate series of baffle ports extending through the side wall of the chamber between the inlet end of the chamber and the rearward ends of said discharge ports, each series of ports extending around the side and top portions of the body, only.

ROBERT H. S. HUGHES.