(No Model.)

# H. E. ANDERSON.

## COMPOUND CORK AND OIL GUN WAD.

No. 506,299. Patented Oct. 10, 1893.

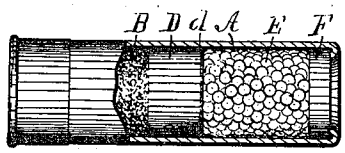



Fig. 1.

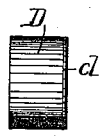



Fig. 2.

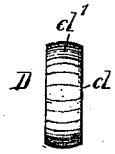



Fig. 3

Witnesses
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# UNITED STATES PATENT OFFICE.

HULBERT E. ANDERSON, OF LANCASTER, PENNSYLVANIA.

## COMPOUND CORK AND OIL GUN-WAD.

SPECIFICATION forming part of Letters Patent No. 506,299, dated October 10, 1893.

Application filed May 25, 1893. Serial No. 475,399. (No model.)

*To all whom it may concern:*

Be it known that I, HULBERT E. ANDERSON, a citizen of the United States, residing in Lancaster, in the county of Lancaster and State of Pennsylvania, have invented certain Improvements in Gun-Wads, of which the following is a specification.

This invention relates to improvements in that class of gun-wads used in shot-guns between the powder and shot; and the objects of the invention are, first, to produce a more perfect gas-check than is afforded by the wads now in use; and, second, to provide a wad from which all matter liable to scratch the barrel of the gun is eliminated.

The invention consists in the construction hereinafter fully specified, and then specifically pointed out in the claim.

The invention is illustrated in the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a longitudinal sectional view of a cartridge shell in which one of my wads is shown located between the powder and shot. Fig. 2 is an edge view of the wad shown in its normal condition, and Fig. 3 a similar view, showing the shape of the wad when under pressure.

Similar letters indicate like parts throughout the several views.

Referring to the details of the drawings, A indicates a loaded cartridge shell; B, the powder; D, the powder wad, having a paper or other facing *d;* E, the shot, and F the shot-wad.

The powder-wad D is composed of ground cork and linseed oil, combined in the proportions of about seven-tenths of ground cork to three-tenths of linseed oil. To render the cork more suitable for the purpose, it is, after being ground, washed in a tank of water, whereby any gritty matter therein is separated from the cork and sinks to the bottom of the tank, leaving the cleansed particles of cork floating on the surface of the water. After being removed from the tank and dried the ground cork is mixed with hot linseed oil until the mass is of a density to be compressed into sheets of a thickness suitable for cutting wads therefrom. Wads thus made are very elastic and do not ignite when discharged from the gun. But the property of the greatest value possessed by them is, that wads made of this composition bulge between the edges of their peripheries under the pressure exerted on them by the products of combustion of the powder in the barrel of the gun, as shown in Fig. 3, while in wads of crude cork and others the periphery between the edges assumes a concave outline under pressure or does not vary from the outline of the edges of the wad. This bulge presses tightly and more evenly against the walls of the bore than the peripheries of other wads and has a more extended surface forced closely against the walls than is the case with wads made from other materials, not only forming a complete gas-check but sliding through the barrel without scratching the surface of the same. Their elasticity is so great that they can be loaded into shells several sizes smaller than the wad and yet expand sufficiently after leaving the shell to completely fill the bore of the gun. If desirable, the side of the wad adjacent to the shot may be faced with paper or other material to equalize the pressure on the shot, but this is not essential.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

As a new article of manufacture, a gun-wad formed of a composition consisting of ground-cork and linseed oil, substantially as specified.

H. E. ANDERSON.

Witnesses:
JEREMIAH RIFE,
WM. R. GERHART.