

W. L. MURPHY.  
SHELL OR PROJECTILE.  
APPLICATION FILED OCT. 26, 1910.

987,590.

Patented Mar. 21, 1911.

Fig. 1.

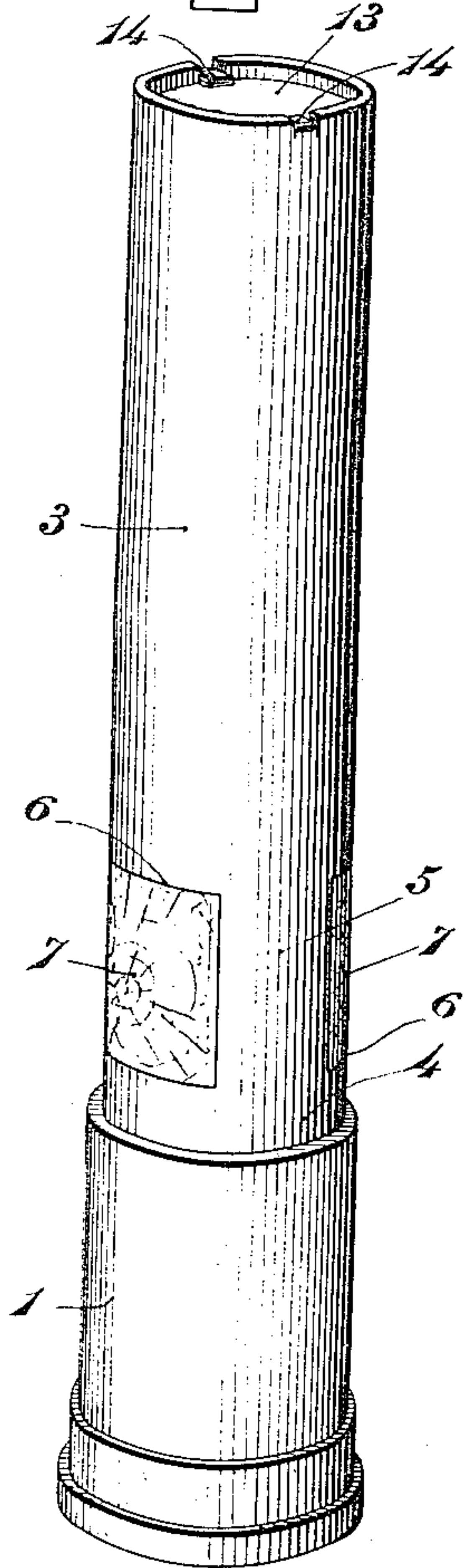


Fig. 2.

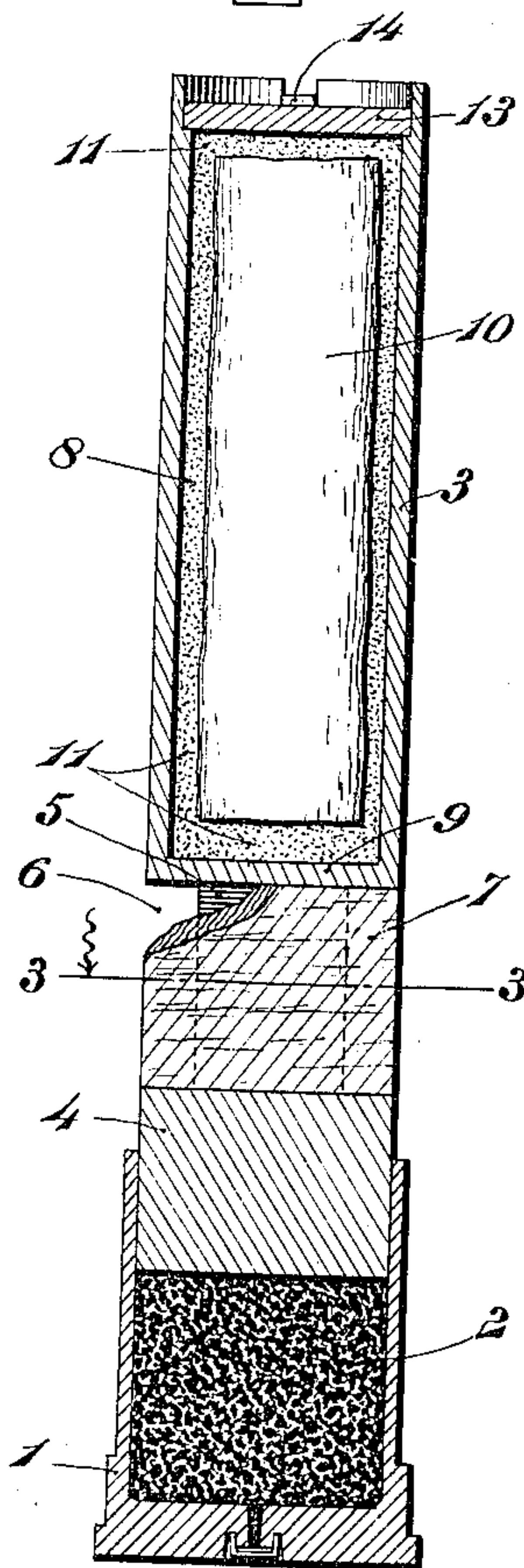
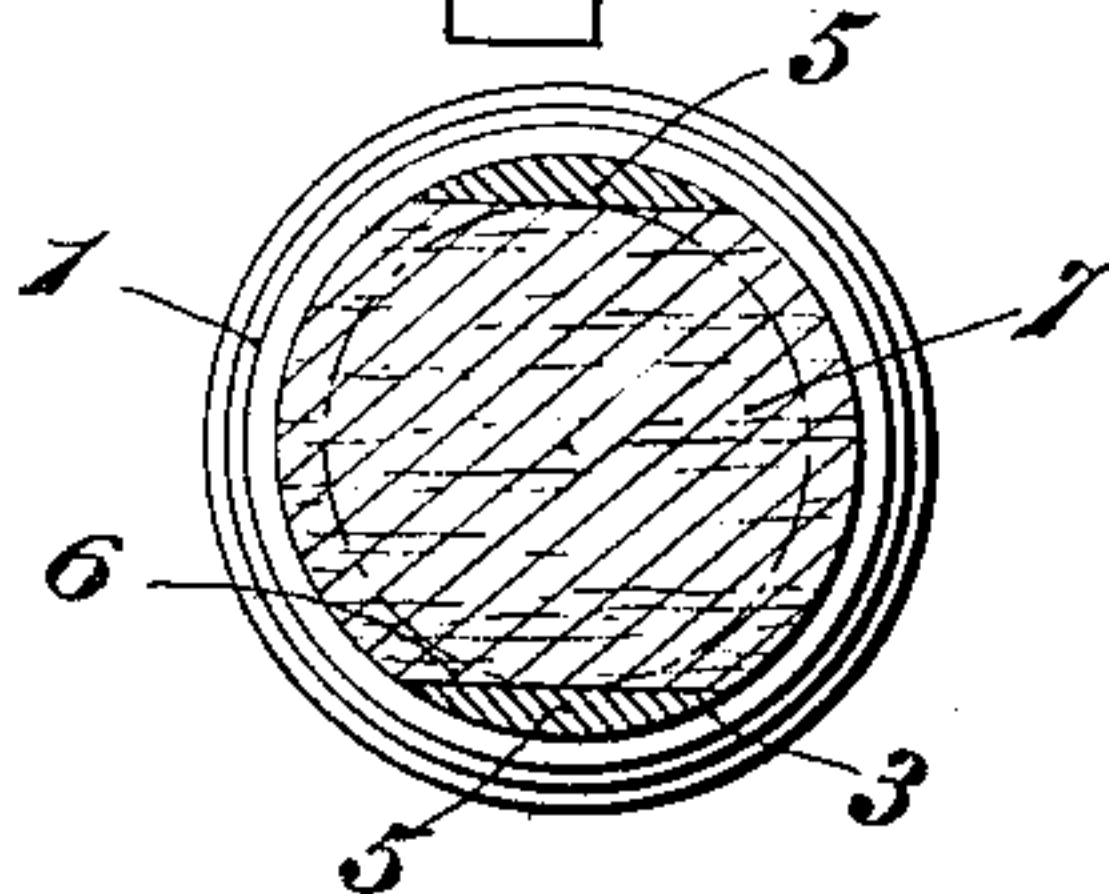


Fig. 3.



Witnesses  
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# UNITED STATES PATENT OFFICE.

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## SHELL OR PROJECTILE.

987,590.

Specification of Letters Patent.

Patented Mar. 21, 1911.

Application filed October 26, 1910. Serial No. 589,217.

*To all whom it may concern:*

Be it known that I, WILLIAM L. MURPHY, a citizen of the United States, residing at Denison, in the county of Grayson and State of Texas, have invented new and useful Improvements in Shells or Projectiles, of which the following is a specification.

This invention relates to a shell or projectile for firing from large guns, and it has for its principal object to provide a shell which can be discharged from the gun without danger of the dynamite exploding from the shock incident to the projecting explosive.

A further object of the invention is the provision of a novel form of shell which has the body weakened adjacent the base by a transverse passage so arranged as to leave connecting portions between the body and base of the shell, the said passage being filled with a wooden plug or other shock-absorbing device, the dynamite or other explosive being packed in the body of the shell in any suitable manner.

With these objects in view and others, as will appear as the description proceeds, the invention comprises the various novel features of construction and arrangement of parts which will be more fully described hereinafter and set forth with particularity in the claims appended hereto.

In the accompanying drawing, which illustrates one embodiment of the invention, Figure 1 is a perspective view of the projectile. Fig. 2 is a longitudinal section thereof. Fig. 3 is a transverse section on line 3—3, Fig. 2.

Similar reference characters are employed to designate corresponding parts throughout the views.

Referring to the drawing, 1 designates the metal cap of the projectile which contains a charge of powder 2 for discharging the shell 3 from the gun, the said shell being fitted in the cap and serving as a plug to hold the powder 2. The shell 3 is a metal tube or cylinder having a base 4 of considerable axial thickness, the said base being connected with the body of the shell by webs or bar portions 5. The base end of the shell can be made solid with a passage or chamber 6 formed therein from one side to the other so as to leave the bar portions 5, the shell being thus weakened between the base 4 and body. In this passage or chamber 6 is driven a wooden or other plug 7 which

gives rigidity to the structure and yet acts as a shock absorbing device. The chamber 8 in the body of the shell is closed by a wall 9 between the chambers 6 and 8 and in this chamber 8 is placed the dynamite charge 10 or other explosive, the same being packed in sawdust 11 that completely surrounds it so as to minimize the danger of the dynamite exploding. After the stick of dynamite and sawdust have been placed in the body of the shell, a cover plate or plug 13 is inserted in the open end of the body and held therein by lugs 14 bent inwardly over the outer surface of the cover plate or plug 13. With a projectile constructed in this manner, the shock occurring at the time the projecting charge of powder 2 is exploded will not be communicated to the shell with sufficient force to cause the shell to explode prematurely.

From the foregoing description, taken in connection with the accompanying drawings, the advantages of the construction and of the method of operation will be readily apparent to those skilled in the art to which the invention appertains, and while I have described the principle of operation of the invention, together with the device which I now consider to be the best embodiment thereof, I desire to have it understood that the device shown is merely illustrative, and that such changes may be made when desired as are within the scope of the claims appended hereto.

Having thus described the invention, what I claim as new, is:—

1. A projectile comprising a shell formed with a base portion having a transverse passage opening in the circumferential surface of the shell, and a body of shock-absorbing material filling the passage and flush with the circumferential surface of the shell.

2. A projectile comprising a shell having a chambered base, the chamber of the base being open at opposite sides, and a plug of wood filling the chamber and having its ends curved and finished flush with the outer surface of the shell.

3. A projectile including a shell having a base, a chambered body, said base and body being rigidly connected by webs of sufficient size to maintain the initial form of the shell, and a body of shock-absorbing material inserted between the base and body of the shell and retained in place by the webs.

4. A projectile including a shell having a transverse passage at one end for separating the base from the body of the shell, there being connecting portions between the base  
5 and body, and a plug of cushioning material filling the said passage.

5. A projectile including a shell having a solid base, a body closed at its inner end, webs integrally connecting the base and  
10 body together, a filling of cushioning material between the base and closed bottom

of the shell and retained in place by the said webs, an explosive charge in the body of the shell, a plug for holding the charge in the body, and lugs on the body bent over 15 the plug to hold the latter in place.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM L. MURPHY.

Witnesses:

JOSEPH BOCKLETT,  
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