R. G. & O. L. AOUGHSTEN.

SHELL.

APPLICATION FILED NOV. 4, 1918.

1,302,272.

Patented Apr. 29, 1919.

2 SHEETS—SHEET 1.

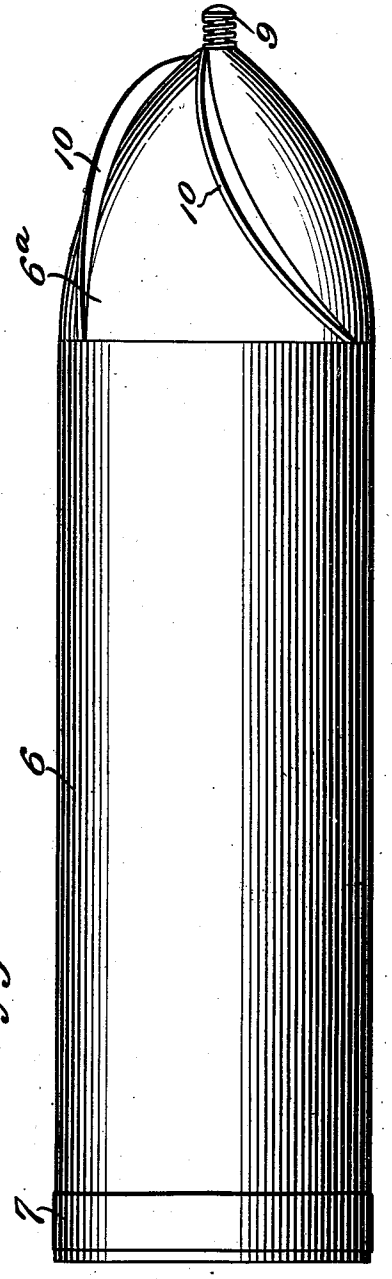


Fig. 1.

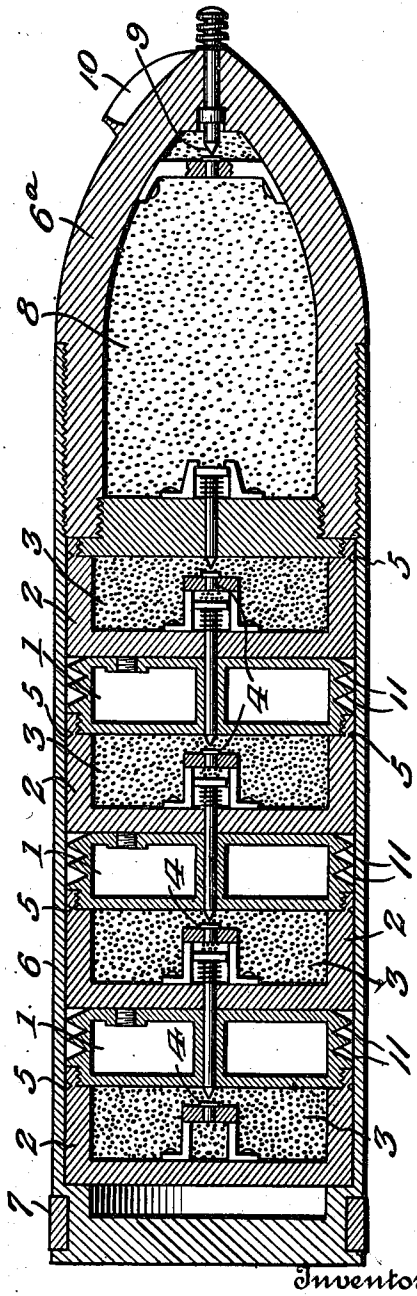


Fig. 2.

Witnesses

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2 SHEETS—SHEET 2.

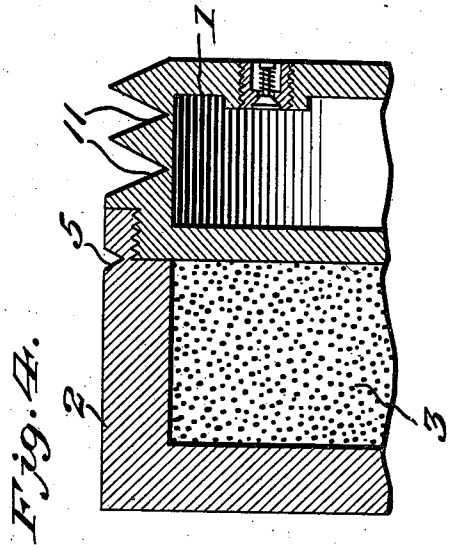


Fig. 4.

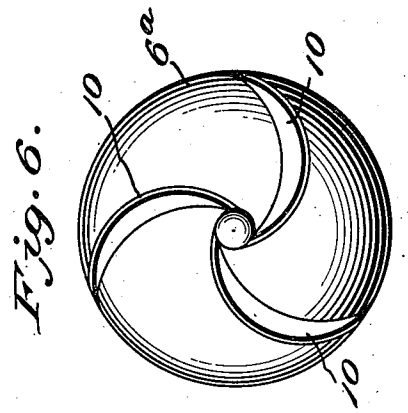


Fig. 6.

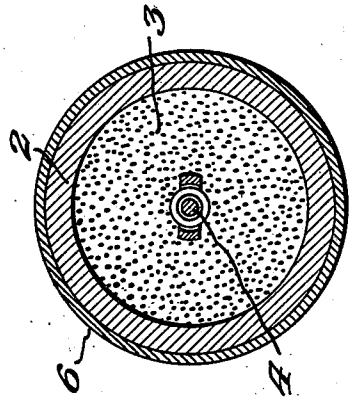


Fig. 3.

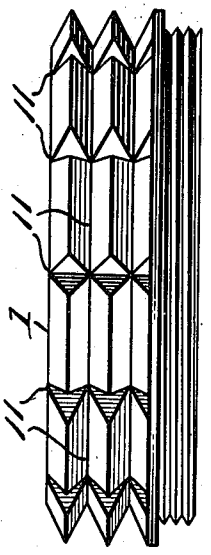


Fig. 5.

Witnesses

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UNITED STATES PATENT OFFICE.

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SHELL.

1,302,272. Specification of Letters Patent. Patented Apr. 29, 1919.

Application filed November 4, 1918. Serial No. 261,071.

To all whom it may concern:

Be it known that we, RICHARD G. AOUGHSTEN and OTTO L. AOUGHSTEN, citizens of the United States, residing at Galveston, in the county of Galveston and State of Texas, have invented new and useful Improvements in Shells, of which the following is a specification.

Our present invention pertains to explosive projectiles, and it has for its object to provide a shell adapted to contain gas and high explosive, and constructed with a view to being divided into a plurality of sub-shells when it brings up against an objective, this with a view to disseminating gas throughout a wide area in the vicinity of the enemies' position and inflicting as much damage as possible upon the enemy.

To the attainment of the foregoing the invention consists in the peculiar and advantageous shell hereinafter described and claimed.

In the accompanying drawings which are hereby made a part hereof:

Figure 1 is a side elevation of the shell constituting the best practical embodiment of our invention that we have as yet devised.

Fig. 2 is a longitudinal central section of the shell.

Fig. 3 is a transverse section of the shell.

Fig. 4 is an enlarged detail view illustrative of the manner in which the sub-shells are jointed to assure separation thereof when the major shell brings up against an obstacle.

Fig. 5 is a detail view of one of the said shells.

Fig. 6 is a detail view illustrating the construction in the forward portion of the casing of the major shell.

Similar numerals of reference designate corresponding parts in all of the views of the drawings.

Some of the sub-shells of our novel shell or projectile are adapted to contain gas, and these sub-shells are numbered 1. The other sub-shells 2 are adapted to contain a suitable high explosive, indicated by 3, are equipped with suitable detonators 4 and are adapted when the shell strikes an objective to be exploded in the usual manner; the explosion being made use of to reduce the sub-shells 2 to fragments in order to injure the enemy, and to effect separation of the sub-shells 1 and to throw or distribute the same about a wide area so as to bring about breakage of the sub-shells 1 and the release of gas therefrom.

The sub-shells 1 and the sub-shells 2 are joined through weakened portions 5, and the sub-shells are arranged in endwise alinement in a casing 6 which is preferably provided on its rear portion with the usual comparatively soft metallic band 7 for the engagement of the lands of a rifle, whereby when the shell is fired it will be turned about its axis during its flight through the air.

The casing 6 is comparatively thin, as shown, and in its forward portion is disposed a comparatively large sub-shell 6^a, joined through a weakened portion 5 to the adjacent sub-shell 2 and designed to contain an explosive charge 8. In the nose of the sub-shell 6^a, and casing 6 is a detonator 9 to explode the large sub-shell 6^a, when the projectile brings up against an object.

On the forward end of the casing 6 are vanes 10, designed to assist in the turning of the shell about its axis.

The gas sub-shells 1 are preferably provided with individual weak portions 11, designed to be broken when the said sub-shells are thrown about with a view of releasing the gas and bringing about the dissemination thereof in the vicinity of the enemy.

In the practical use of our novel shell, the explosion of the sub-shell 6^a will strike the thin casing 6 from all the sub-shells, and the shock will also, because of the interposed weakened portions, bring about separation of all the sub-shells 6^a, 7 and 2 whereupon the said sub-shells will be violently thrown about and either exploded or broken with the result that great physical injury will be inflicted upon the enemy and at the same time he will be subjected to the action of the released gas.

It will be appreciated from the foregoing that notwithstanding its utility in action as hereinbefore set forth our novel shell is not liable to prematurely explode, and hence may be handled and transported with comparative safety.

Having described our invention, what we claim and desire to secure by Letters Patent, is:—

1. An explosive shell comprising a thin casing, a sub-shell arranged in the forward portion of the casing, said sub-shell having a detonator and being adapted to contain ex-

plosive, a second sub-shell for explosive arranged in the casing and joined through a weakened portion to the first-named sub-shell and having a detonator, and a third sub-shell for gas arranged in the casing and joined through a weakened portion with the other sub-shells and having an individual weakened portion.

2. In an explosive shell, sub shells designed to contain gas and a high explosive, respectively, and arranged end to end and joined through a comparatively weak portion whereby when the shell is exploded the sub-shell containing gas will be thrown a considerable distance from the remainder of the shell.

3. An explosive shell comprising a casing, and a plurality of sub-shells arranged end to end in the casing and joined together through the medium of weakened portions; some of the sub-shells being adapted to contain gas and the others being provided with individual fuses and being adapted to contain charges of high explosive, and the foremost sub-shell being provided with detonating means.

4. An explosive shell comprising a casing, and sub-shells designed to receive explosive and gas, respectively, and arranged end to end in the casing and joined through a weak portion.

5. An explosive shell comprising a casing, and sub-shells designed to receive explosive and gas, respectively, and arranged end to end in the casing and joined through a weak portion; the gas sub-shell being provided with an individual weak portion.

In testimony whereof we affix our signatures.

RICHARD G. AOUGHSTEN.
OTTO L. AOUGHSTEN.