March 5, 1946. J. S. STEWART 2,396,061

PROJECTILE CASE

Filed July 23, 1943

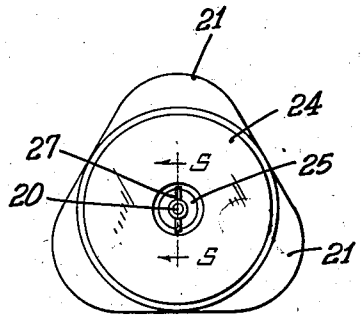


Fig. 1

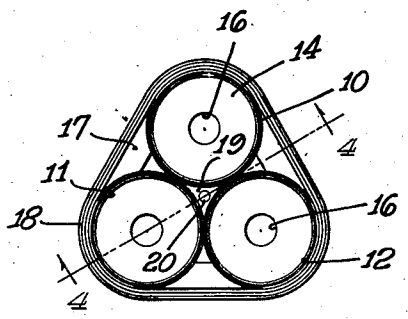


Fig. 2

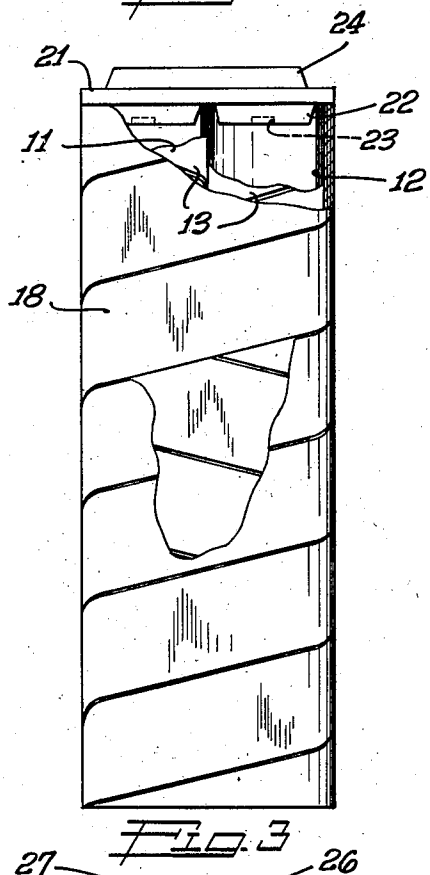


Fig. 3

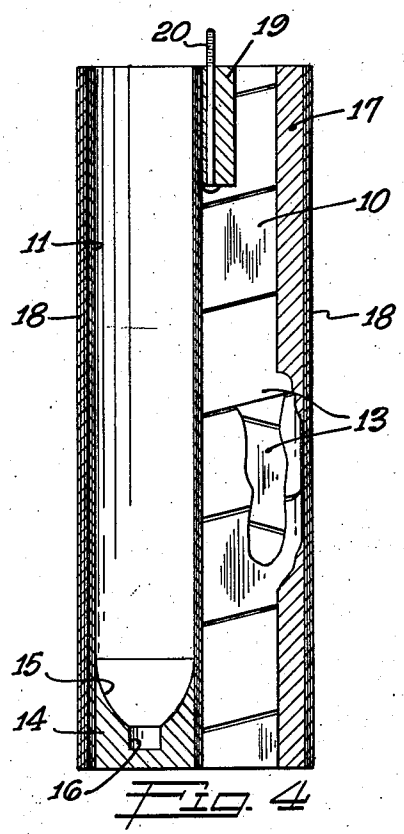


Fig. 4

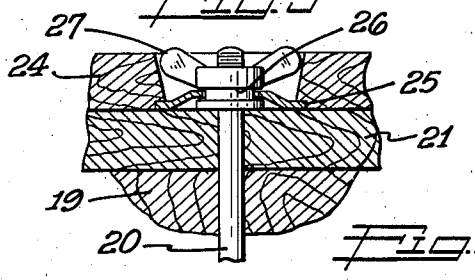


Fig. 5

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Patented Mar. 5, 1946 2,396,061

UNITED STATES PATENT OFFICE

2,396,061

PROJECTILE CASE

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Application July 23, 1943, Serial No. 495,827

2 Claims. (Cl. 206—3)

This invention relates to a projectile case.

An object of the invention is to provide a case for packing, transporting, and storing large projectiles or cartridges which will facilitate handling a group of such projectiles or cartridges together.

More particularly, an object of the invention is to provide a case for such devices which can be easily and inexpensively constructed and which is very strong so as to resist rough handling.

Another object of the invention is to provide a projectile case wherein the detonator of the shell will be adequately protected.

With the foregoing and other objects in view, which will be made manifest in the following detailed description and specifically pointed out in the appended claims, reference is had to the accompanying drawing for an illustrative embodiment of the invention, wherein:

Figure 1 is a top plan view of the projectile case embodying the present invention;

Fig. 2 is a top plan view of the projectile case illustrating the cover as having been removed;

Fig. 3 is a view in side elevation of the case shown in Fig. 1;

Fig. 4 is a sectional view taken substantially upon the line 4—4 upon Fig. 2 in the direction indicated; and

Fig. 5 is a partial view in vertical section illustrating a detail of construction.

Referring to the accompanying drawing wherein similar reference characters designate similar parts throughout, the projectile case illustrated is designed to contain three shells or cartridges. To this end three tubes 10, 11, and 12 are provided which are formed of plywood.

In constructing these tubes it is desirable to have the grain of the veneer layers cross-bonded, that is adjacent layers of veneer have their grain running at decided angles to each other. To this end I find it advisable to helically wind veneer strips 13 alternately in opposite directions in constructing the tubes. The veneer layers are bonded together with any suitable or preferred bonding material, pressure usually being applied during the setting of the bonding material and in some instances heat is also applied.

In the lower ends of each of the tubes there are secured wooden plugs 14 shaped as at 15 to conform to the ends of the shell. Recesses 16 are formed therein to accommodate the detonator of the shell. Each tube has its lower end filled by such a plug.

The three tubes are assembled together in tangential relationship there being filler strips preferably formed of fir and indicated at 17 which extend from top to bottom adjacent the tubes. About the tubes and filler strips additional layers of veneer 18 are wound. These strips are also helically wound in opposite directions so as to have a cross-bonded relationship wherein the grain of one strip is disposed at a decided angle to adjacent strips. The outer veneer 18 is likewise bonded together with any suitable or preferred bonding material. Between the upper ends of the tubes there is disposed a center strip 19 having an axial bore therethrough to receive a bolt 20. A triangular cover 21 which may or may not be formed of plywood, is provided which fits over the top of the projectile case. This cover has shallow plugs or embossments 22 secured on its underside capable of telescoping down within the tubes. These plugs may be recessed as at 23 to accommodate or protect any firing mechanism of the cartridge or shell case.

On top of the triangular portion of the cover there is a circular section 24, the edge of which is preferably beveled as indicated in Fig. 3. A disc 25, see Fig. 5, is interposed between the triangular cover 21 and the circular portion 24. This disc fits about and in a groove 26 on a wing nut 27 which is adapted to be screwed onto the upper end of the bolt. When the wing nut is tightened the cover is held firmly on the projectile case and on removal of the cover the wing nut is retained on the cover by means of disc 25.

It will be appreciated that the improved projectile case can be easily, quickly, and cheaply constructed and will facilitate the handling of three shells or cartridges. Inasmuch as all of the layers of plywood veneer are bonded to each other a rigid, strong, but light construction is provided. The shape of the complete case is such that a plurality of cases may be conveniently packed in side by side relationship. It is not necessary in all instances that the veneer layer strips be helically wound in opposite directions to secure the desirable cross-bonding. The veneer may be wrapped longitudinally and transversely to secure such cross-bonding if desired.

Various changes may be made in the details of construction without departing from the spirit or scope of the invention as defined by the appended claims.

I claim:

1. A projectile case comprising a plurality of plywood tubes each of which is adapted to receive a shell case or cartridge, means for closing one end of each tube, filler strips between the sides of the tubes, plywood encircling said tubes from

end to end and holding said tubes together, there being a central filler strip between the tubes adjacent the upper ends, a bolt extending therethrough, a cover having an aperture adapted to receive said bolt, and a wing nut anchored on the cover adapted to be screwed onto the bolt.

2. A projectile case comprising a plurality of plywood tubes each of which is adapted to rereceive a shell case or cartridge, means for closing one end of each tube, filler strips between the sides of the tubes, plywood encircling said tubes from end to end and holding said tubes together, there being a central filler strip between the tubes adjacent the upper ends, a bolt extending therethrough, a cover having an aperture adapted to receive said bolt, and a wing nut anchored on the cover adapted to be screwed onto the bolt, said cover being adapted to close the other ends of the tubes and the spaces therebetween within the outer plywood covering.

JAMES S. STEWART.