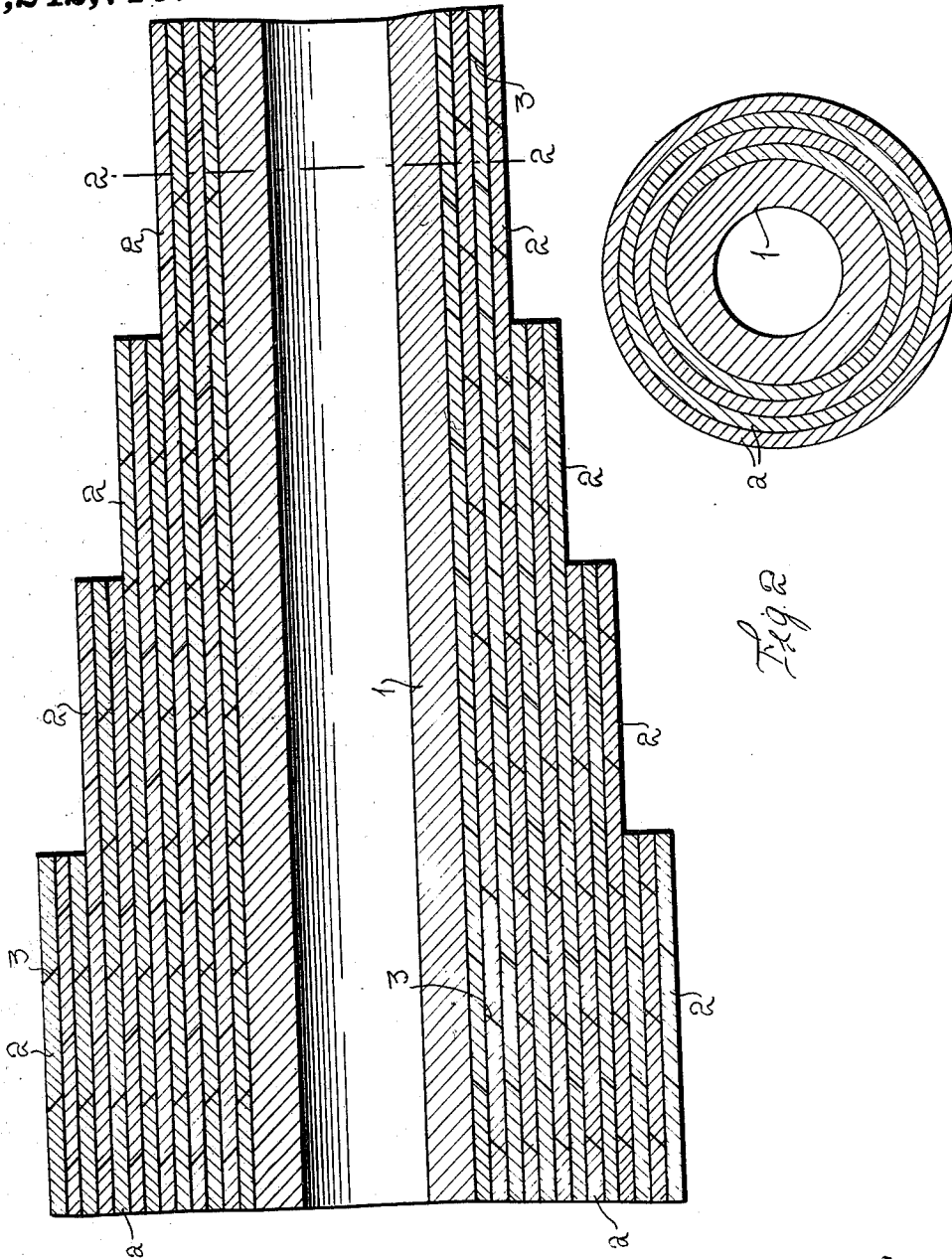


G. N. OSTRANDER.
GUN.
APPLICATION FILED JUNE 27, 1917.

Patented Oct. 9, 1917.

1,242,719.



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GUN.

1,242,719.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GEORGE N. OSTRANDER, a citizen of the United States, residing at Highland Springs, in the county of Henrico and State of Virginia, have invented certain new and useful Improvements in Guns, of which the following is a specification, reference being had to the accompanying drawings.

10 This invention relates to certain improvements in built-up guns and it is an object of the invention to provide a novel and improved device of this general character which effectively withstands the concussive force
15 generated during the firing of the gun.

The invention consists in the details of construction and in the combination and arrangement of the several parts of my improved gun wherein certain important advantages are attained and the device rendered simpler, less expensive and otherwise more convenient and advantageous for use, as will be hereinafter more fully set forth.

20 The novel features of my invention will hereinafter be definitely claimed.

In order that my invention may be the better understood I will now proceed to describe the same with reference to the accompanying drawings, wherein—

30 Figure 1 is a fragmentary view taken longitudinally of a gun constructed in accordance with an embodiment of my invention, and

35 Fig. 2 is a sectional view taken substantially on the line 2—2 of Fig. 1.

As disclosed in the accompanying drawings 1 denotes the inner tube of my improved gun which extends the entire length thereof and which is to be finished in accordance with the requirements of practice. 40 It is preferred that the wall of the tube be three inches or more in thickness.

Laminations (a) of steel surround the tube 1 and in concentric relation whereby 45 the tube 1 is effectively reinforced to withstand the concussive force of an explosion and thereby prevent rupture of the tube 1. The laminations (a) at the breech end of the gun are in stepped series as clearly illustrated in Fig. 1 of the accompanying drawings and which serves to give the requisite resistance to the breech end.

Each of the laminations (a) comprises a plurality of sections or annuli 2 and I 55 found it of especial advantage to have each of said sections or annuli of a width equal

to eight times the thickness thereof except the sections or annuli at the ends of the laminations. The ends of the laminations for obvious reasons will be of a width equal 60 to four times the thickness thereof. The opposed margins of adjacent sections or annuli of each lamination are correspondingly beveled as indicated at 3 so that said adjacent marginal portions are in overlying 65 relation when the sections or annuli are in applied position and it is desired that the beveled portions 3 be arranged on an angle of 45°. It is also essential that the sections or annuli of one lamination be arranged in 70 staggered relation with the sections or annuli of the adjacent laminations with the marginal portion of the sections or annuli 2 of one lamination substantially midway of the sections or annuli of the adjacent laminations. 75

In assembling my improved gun the sections or annuli of the inner lamination are shrunk upon the tube 1 with the adjacent margins of said sections or annuli in direct 80 contact. The remaining laminations are then shrunk one upon the other.

From the foregoing description, it is thought to be obvious that a gun constructed in accordance with my invention is particularly well adapted for use by reason of the convenience and facility with which it may be assembled and operated and it will also be obvious that my invention is susceptible of some change and modification without 90 materially departing from the appearance and spirit thereof and for this reason I do not wish to be understood as limiting myself to the precise arrangement and formation of the several parts herein shown in carrying out my invention in practice except as 95 hereinafter claimed.

I claim:

1. A gun comprising in combination, an inner tube, a plurality of reinforcing laminations concentric of the tube and shrunk thereupon and upon each other, each of said laminations comprising a plurality of annuli, each of said annuli being of a width 10 equal to eight times its thickness.

2. A gun comprising in combination, an inner tube, a plurality of reinforcing laminations concentric of the tube and shrunk thereupon and upon each other, each of said laminations comprising a plurality of annuli, and each of said annuli being of a width equal to eight times its thickness, the 15

opposed margins of the annuli being correspondingly beveled and on an angle of 45° whereby said adjacent marginal portions are in overlying relation.

3. A gun comprising in combination, an inner tube, a plurality of reinforcing laminations concentric of the tube and shrunk thereupon and upon each other, each of said annuli being of a width equal to eight times its thickness, the opposed margins of the annuli being correspondingly beveled and on an angle of 45° whereby said adjacent

marginal portions are in overlying relation, the sections of the laminations being in staggered relation, the marginal portion of the annuli of one section being substantially midway of the annuli of the lamination adjacent thereto. 15

In testimony whereof I hereunto affix my signature in the presence of two witnesses. 20

GEORGE N. OSTRANDER.

Witnesses:

O. C. HEDRICK,
J. F. SHOMAKER.