

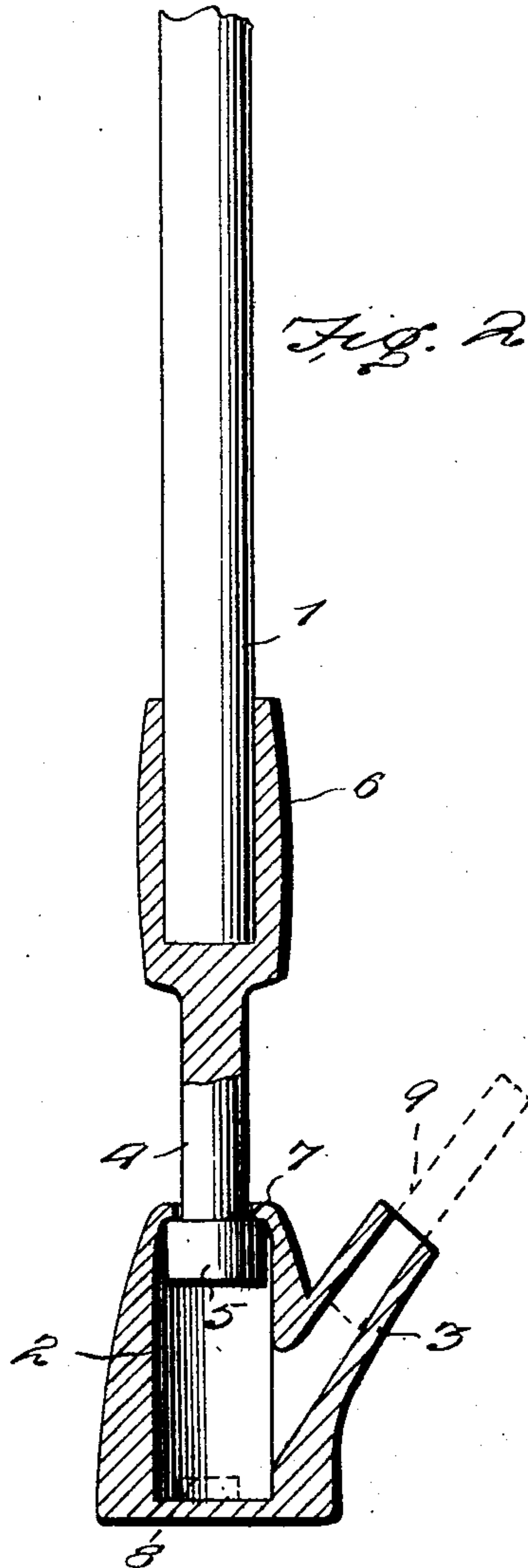
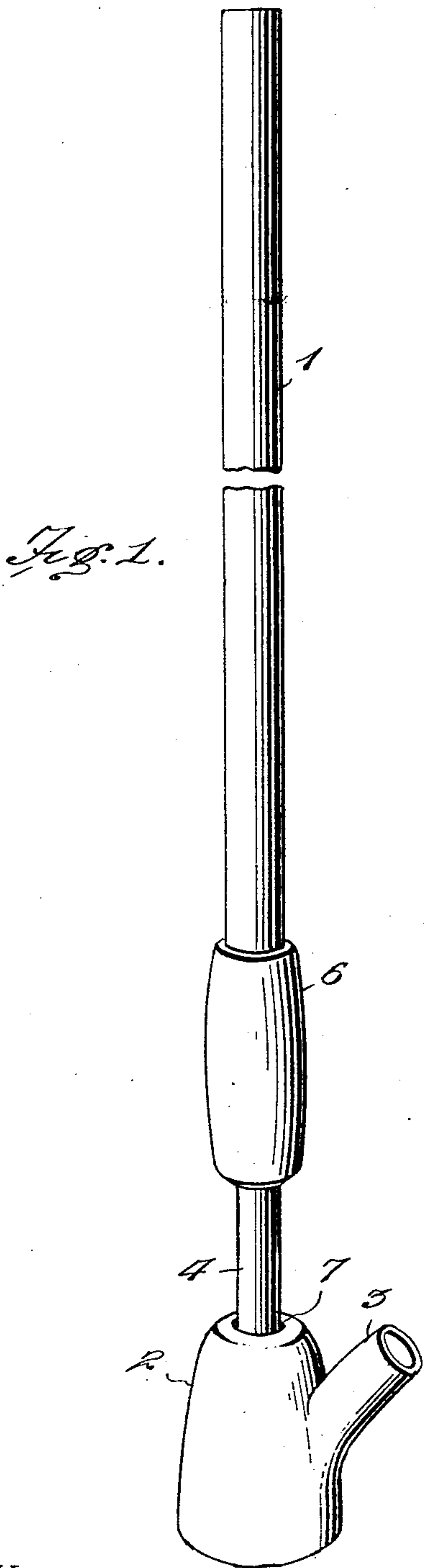
No. 710,956.

Patented Oct. 14, 1902.

A. DELGRANDE.
COMBINED DETONATOR AND CATAPULT.

(Application filed Jan. 22, 1902.)

(No Model.)



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UNITED STATES PATENT OFFICE.

ANTONIO DELGRANDE, OF PETERSBURG, VIRGINIA.

COMBINED DETONATOR AND CATAPULT.

SPECIFICATION forming part of Letters Patent No. 710,956, dated October 14, 1902.

Application filed January 22, 1902. Serial No. 90,850. (No model.)

To all whom it may concern:

Be it known that I, ANTONIO DELGRANDE, a citizen of the United States, residing at Petersburg, in the county of Dinwiddie and State of Virginia, have invented a new and useful Combined Detonator and Catapult, of which the following is a specification.

This invention relates to a combined detonator and catapult.

10 The object of the invention is to provide a novel, inexpensive, and thoroughly effective device of the character specified adapted for use in connection with political or other parades or for Fourth of July celebrations, the
15 device in operation causing first the explosion of a cartridge or cap and then the projection of a pyrotechnic ignited by the flame of the cap and giving out in its passage through the air a shrill whistling sound, accompanied, if desired, by a brilliant light of
20 some predetermined color.

With these and other objects in view, as will appear as the nature of the invention is better understood, the same consists in the
25 novel construction and combination of parts of a combined detonator and catapult, as will be hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which like
30 numerals of reference indicate corresponding parts, there is illustrated a form of embodiment of my invention capable of carrying the same into practical operation, it being understood that the elements therein exhibited
35 may be varied or changed as to shape, proportion, and exact manner of assemblage without departing from the spirit of the invention, and in these drawings—

Figure 1 is a view in side elevation of the
40 device characterizing this invention. Fig. 2 is a view in vertical transverse section.

Referring to the drawings, 1 designates the staff or handle, which in use may constitute a cane or a flagstaff. To one end of the staff
45 is secured in any suitable manner the detonator and catapult, comprising a gas or explosion chamber 2, provided with a hollow extension 3, disposed at an angle to the staff and constituting a barrel, and a plunger 4,
50 carrying at one end a head or enlargement 5, constituting a hammer, and at the other end a socket 6, in which the staff is held in any

preferred manner. The hammer is held from disengagement with the chamber 3 by having the walls surrounding the opening in which
55 the plunger works inturned, as at 7, as clearly shown in Fig. 2.

The explosion-chamber in use is designed to hold a cap or tablet of a suitable explosive, (indicated by dotted lines in Fig. 2 and designated by 8,) the bore of the chamber in
60 which the hammer works being of such size as, while to permit free movement of the hammer, to cause it positively to contact with the explosive, while the barrel is designed to
65 receive and hold a tube 9, (indicated by dotted lines in Fig. 2,) containing a compound used in connection with what is generally known as a "whistling-bomb" and having the property when ignited of emitting a shrill
70 whistling sound.

In the use of the device the cap or explosive is placed in the gas-chamber and the tube 9 is inserted in the barrel, and upon allowing the staff to drop upon a hard object, as the
75 ground, the hammer will explode the cap and the gas generated thereby will violently expel the tube, the compound contained thereby being ignited by the explosion of the cap. The use of this whistling-tube will give
80 added novelty to the device in use; but it is to be understood that the invention is not to be limited to its employment, as it will be obvious that a very desirable detonator will be presented merely by employing an explosive
85 cap in connection with it.

While the detonator is herein shown as associated with a staff, it is to be understood that the invention is not to be limited to this combination, as the detonator may be sold
90 as an article of manufacture and supplied to dealers as such, who will apply the staff themselves.

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

1. A detonator comprising an explosion-chamber provided with an angularly-disposed barrel projecting laterally beyond the chamber, and a plunger carrying at one end a hammer working within the chamber and at its
100 opposite end means for connection with a staff.

2. A detonator comprising an explosion-

chamber having a barrel projecting beyond
and disposed at an angle thereto to receive a
projectile, a plunger carrying at one end a
hammer to work within the chamber and at
5 the opposite end a socket, and a staff asso-
ciated with the socket.

In testimony that I claim the foregoing as

my own I have hereto affixed my signature in
the presence of two witnesses.

ANTONIO DELGRANDE.

Witnesses:

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H. V. PARHAM.