

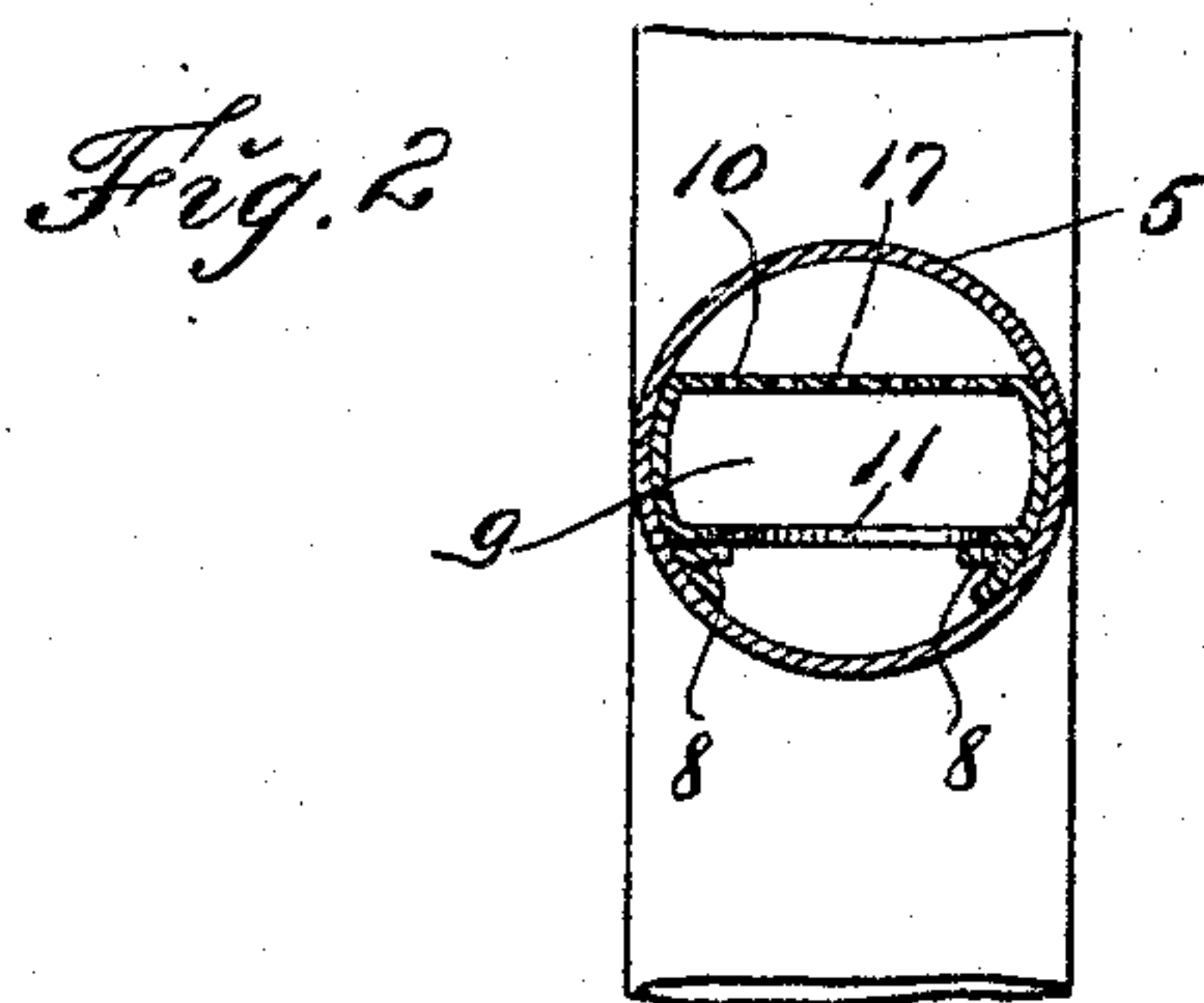
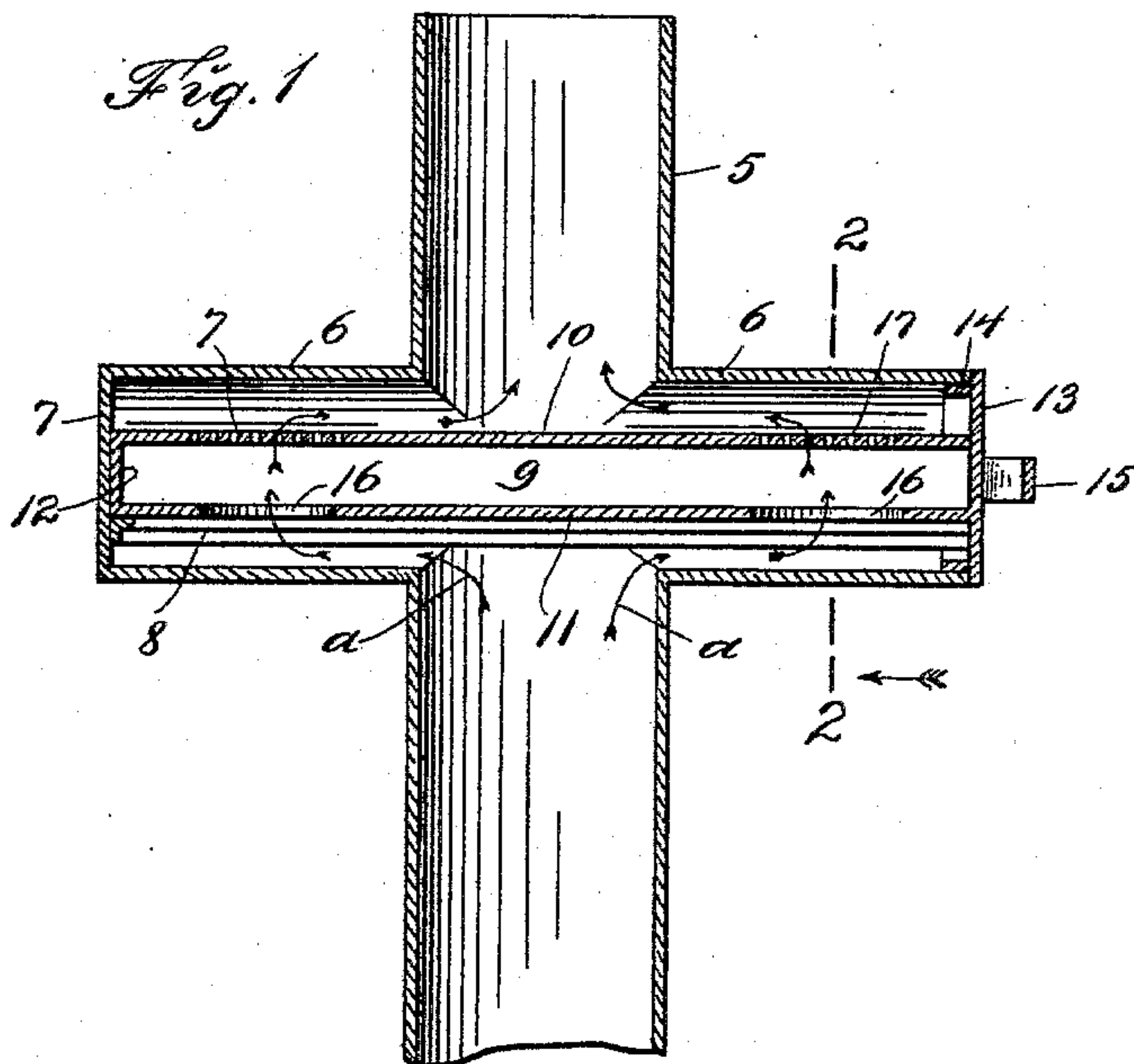
(No Model.)

2 Sheets—Sheet 1.

M. S. WOODS.
SPARK ARRESTER.

No. 598,129.

Patented Feb. 1, 1898.



WITNESSES:

C. Vordors
C. Gersh

INVENTOR

Murray Storer Woods

BY

Edgar Tate

ATTORNEYS.

(No Model.)

2 Sheets—Sheet 2.

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Fig. 3

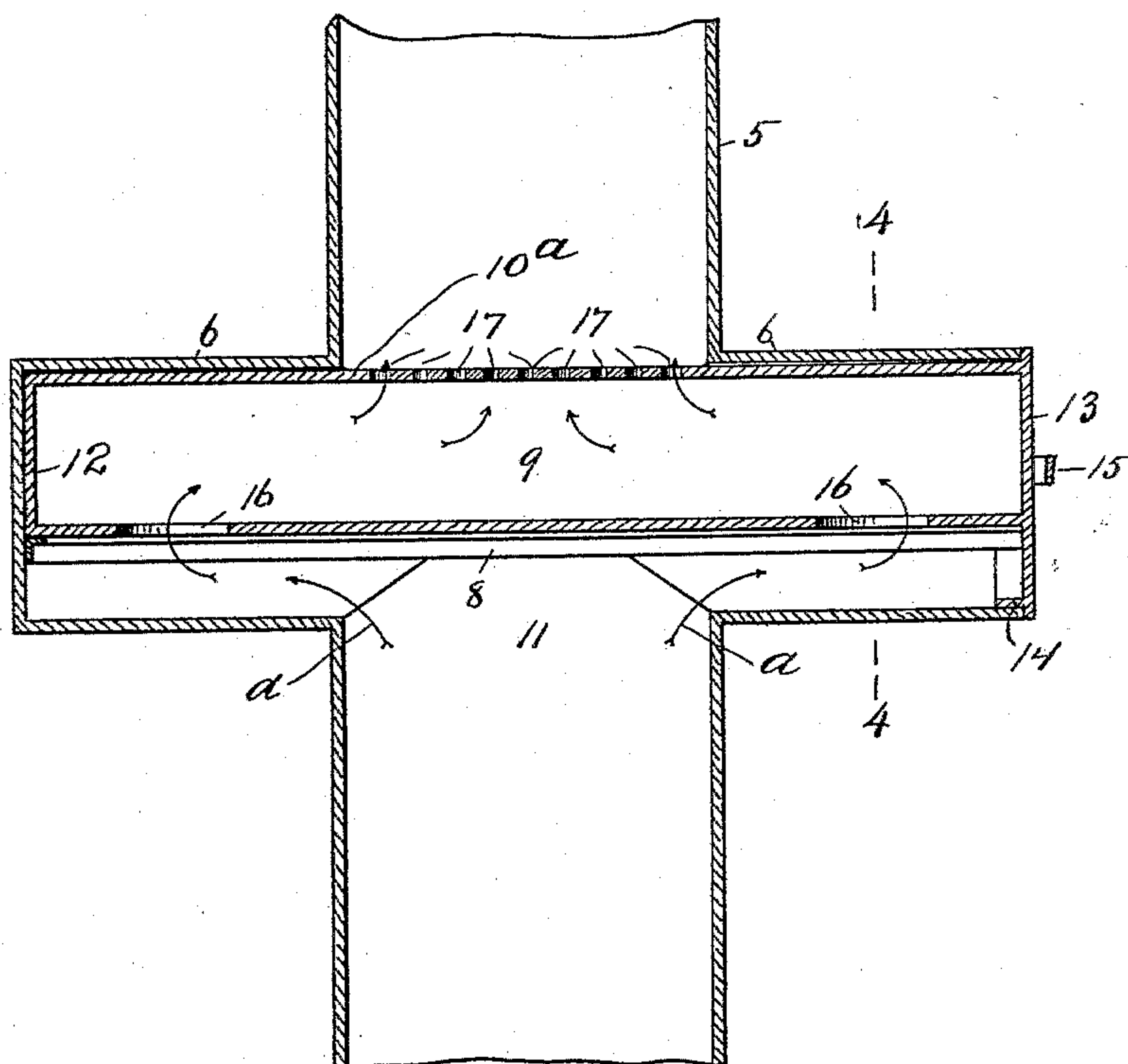
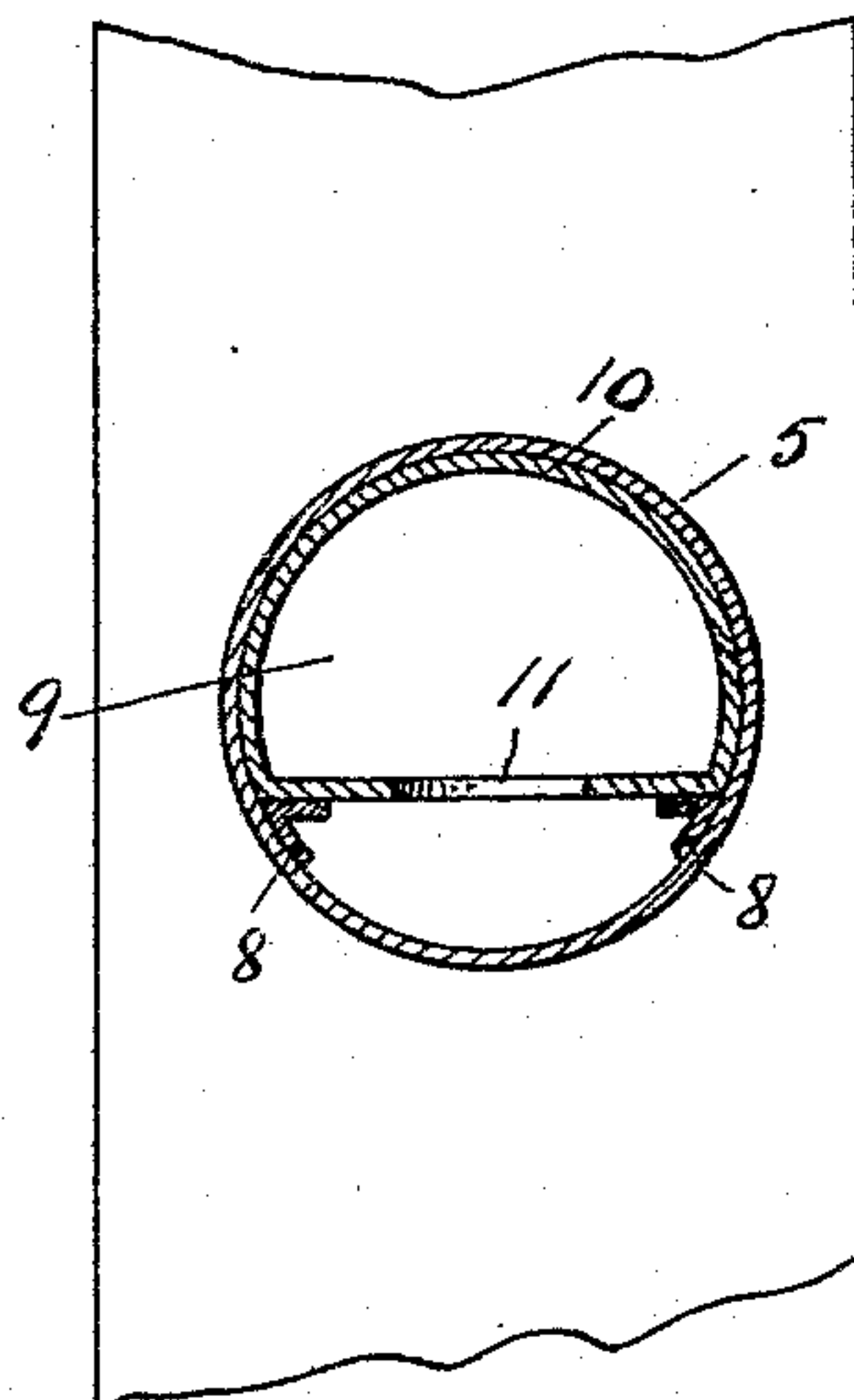


Fig. 4



WITNESSES.

C. Nordfors
C. Gust

INVENTOR

Murray Stover Woods

BY

Edgar J. L. L.

ATTORNEYS.

UNITED STATES PATENT OFFICE.

MURRAY STOVER WOODS, OF NEW BIRMINGHAM, TEXAS.

SPARK-ARRESTER.

SPECIFICATION forming part of Letters Patent No. 598,129, dated February 1, 1898.

Application filed April 27, 1897. Serial No. 634,184. (No model.)

To all whom it may concern:

Be it known that I, MURRAY STOVER WOODS, a citizen of the United States, residing at New Birmingham, in the county of Cherokee and State of Texas, have invented certain new and useful Improvements in Spark-Arresters, of which the following is a full and complete specification, such as will enable those skilled in the art to which it ap-
10 pertains to make and use the same.

This invention relates to spark-arresters for use in connection with the pipes or escape-flues of cooking-stoves, heating-stoves, and similar devices; and the object thereof is to
15 provide an improved device of this class which is adapted to be connected with the pipe or escape-flue and by means of which sparks and other large substances are prevented from passing out through the pipe or
20 flue, a further object being to provide a device of this class which is adapted to conserve the heat and retard the passage thereof through the lower portion of the escape-flue and retain it in the stove or heater, so as to
25 economize in the use of fuel.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which—

Figure 1 is a central vertical section of my
30 improved spark-arrester; Fig. 2, a section on the line 2 2 thereof; and Fig. 3, a view similar to that shown in Fig. 1, but showing the upper plate semicircular in form and having the opening therein on a line with the flue; Fig.
35 4, a section on the line 4 4 of Fig. 3.

In the drawings forming part of this specification the separate parts of my improvement are designated by the same numerals of reference in each of the views, and in the
40 practice of my invention I provide a device for the purpose herein specified which comprises an upright tube 5, which is provided at its opposite sides with tubular extensions 6. The inner ends of the tubular side exten-
45 sions 6 communicate with the tube 5, as shown in the drawings, and the outer end of one of said tubular extensions 6 is closed, as shown at 7, and the other is open, and secured in and extending through said tubular extension 6 are longitudinal side strips or supports
50 8. I also provide a longitudinal casing 9, which is composed of a top plate 10 and a

bottom plate 11, and one end of which is closed, as shown at 12, and the opposite end thereof is provided with a circular cap or plate 13, 55 which is designed to close the open end of one of the tubular extensions 6, through which the casing 9 is adapted to be inserted.

The casing 9 is of the same length as the side extensions 6 of the upright tube 5, and the cap 60 or end plate 13 is provided on the inner side thereof with an annular flange 14 and on the outer side with a handle 15.

The bottom plate 11 of the casing 9 is provided near each end with a large opening 16, 65 and the top plate 10 of said casing is perforated near each end, as shown at 17, and the operation will be readily understood from the foregoing description when taken in connection with the accompanying drawings and the
70 following statement thereof.

The herein-described device is adapted to be connected with the pipe or escape-flue of a stove or heater at any desired point, but is preferably connected therewith at a short distance from the stove or heater, or within from
75 two to six feet thereof, and the products of combustion, including the smoke, sparks, and other light substances, such as paper or similar material, when the latter is not fully consumed, pass upwardly through the upright
80 tube 5 in the direction of the arrows *a* and through the large opening 16 in the bottom of the plate 11 of the casing 9, and the sparks and other substances are arrested by the top
85 plate 10 of said casing and remain in said casing or fall into the bottom of the tubular side extensions 6 of the tube 5.

It will be understood that the casing 9 may be removed whenever desired, and the top 90 plate 10 thereof may be convex in cross-section, if desired, as shown in Figs. 3 and 4, and other changes in and modifications of the construction herein described may be made without departing from the spirit of my in-
95 vention or sacrificing its advantages.

By means of my improvement I prevent sparks and other substances from passing through the pipe or flue and I also retard the flow of heat therethrough and thus conserve
100 the heat and confine the same to an extent in the lower part of the pipe or flue and in the stove or heater, and by means of this arrangement a saving is effected in fuel.

My improvement is well adapted to accomplish the result for which it is intended and is also comparatively inexpensive.

5 Having fully described my invention, I claim as new and desire to secure by Letters Patent—

1. A spark-arrester, comprising an upright tube side tubes connected with the opposite sides thereof, and communicating therewith, 10 the outer end of one of said side tubes being closed, and the other open, and a sliding casing which is adapted to be inserted into the open end of one of said side tubes, and to extend longitudinally through both of said side 15 tubes, and across the upright tube, said sliding casing being provided with means to close the said opening, said casing consisting of a bottom and a top plate, and said bottom plate being provided with openings, and said top 20 plate with perforations, said openings and perforations being out of line with said upright tube, substantially as shown and described.

2. A spark-arrester, comprising an upright

tube side tubes connected with the opposite 25 sides thereof, and communicating therewith, the outer end of one of said side tubes being closed, and the other open, and a sliding casing which is adapted to be inserted into the open end of one of said side tubes, and to extend longitudinally through both of said side 30 tubes, and across the upright tube, said casing consisting of a bottom and a top plate, and said bottom plate being provided with openings, and said top plate with perforations, 35 and said casing being also provided at one end with a cap-plate which is adapted to close the open end of the side tube into which said casing is inserted, substantially as shown and 40 described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 21st day of April, 1897.

MURRAY STOVER WOODS.

Witnesses:

L. R. PEACOCK,

W. J. LEWIS.