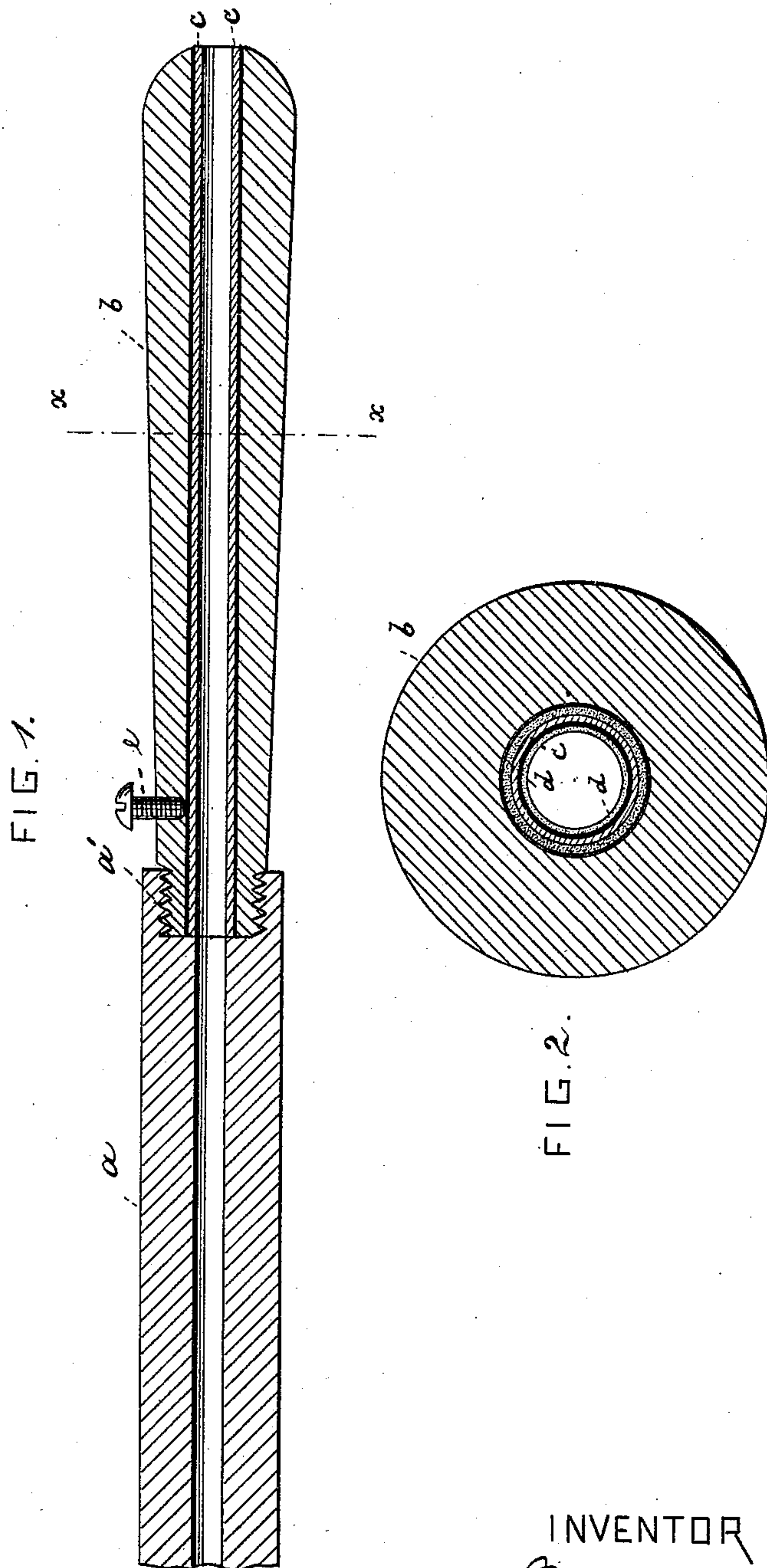


(No Model.)

A. PITMAN.
GLASS BLOWING TUBE.

No. 444,160.

Patented Jan. 6, 1891.



WITNESSES

Wm. A. Lowe
Wm. Wagner

INVENTOR

A. Pitman
by his attorneys
Roeder & Briesen

UNITED STATES PATENT OFFICE.

AARON PITMAN, OF MATAWAN, NEW JERSEY.

GLASS-BLOWING TUBE.

SPECIFICATION forming part of Letters Patent No. 444,160, dated January 6, 1891.

Application filed May 24, 1890. Serial No. 352,998. (No model.)

To all whom it may concern:

Be it known that I, AARON PITMAN, of Mat-
awan, Monmouth county, New Jersey, have
invented an Improved Glass-Blowing Tube,
5 of which the following is a specification.

This invention relates to a glass-blower's
tube so constructed that metallic oxide will
not be formed at the end of the tube thrust
into the glass-pot. Usually this metallic oxide
10 forms owing to the high temperature to which
the tube is subjected and is absorbed in part
by the glass. This not only uses up the tube,
but it also injuriously affects the glass. By
my invention no metallic oxide or "moiles"
15 is formed.

The invention consists in the various fea-
tures of improvement more fully pointed out
in the claims.

In the accompanying drawings, Figure 1 is
20 a longitudinal central section through one
end of my improved glass-blowing tube. Fig.
2 is an enlarged cross-section on the line $x x$,
Fig. 1.

The letter a represents a glass-blower's tube
25 having a screw-tapped socket a' at one end.
Into this socket there is screwed a nozzle b ,
which is adapted to be dipped into the viscid
glass. The nozzle b is made non-oxidizable
either by being coated with an electrolytic
30 deposit of platinum or by being composed of
a non-oxidizable alloy.

The alloy I prefer to use for making the
nozzle b consists of about forty parts of cop-
per, forty parts of nickel, ten parts of alumi-
35 num, and ten parts of platinum.

The bore of nozzle b is greater than the
bore of the tube a , and into the bore of the
nozzle there is slipped a platinum tube c , as
shown. This tube c is withdrawn from time
to time and steeped in powdered graphite 40
 a , which will adhere sufficiently to the sur-
faces of the tube. The tube c thus prepared
is placed into the bore of the nozzle, when it
will constitute a continuation of the bore of
tube a . A binding-screw e serves to hold 45
tube c in place.

The object of the coated inner tube c is to
prevent oxidation or adherence of that part
of the glass that enters the mouth of the noz-
zle. In Fig. 2, which is greatly exaggerated, 50
the graphite coating is visible, while in Fig.
1, which is on a natural scale, such coating is
not perceptible.

A blow-tube made according to my inven-
tion will be serviceable for an indefinite length 55
of time and will produce clean work.

What I claim is—

1. A glass-blower's tube provided with a
nozzle and an inner tube within said nozzle,
substantially as specified. 60

2. A glass-blower's tube provided with a
nozzle, a tube within the nozzle, and a graph-
ite coating upon the tube, substantially as
specified.

A. PITMAN.

Witnesses:

F. V. BRIESEN,
A. JONGHMANS.