C. G. CONN.

REED MUSICAL INSTRUMENT.

APPLICATION FILED OCT. 22, 1913.

1,166,971.

Patented Jan. 4, 1916.

2 SHEETS—SHEET 1.

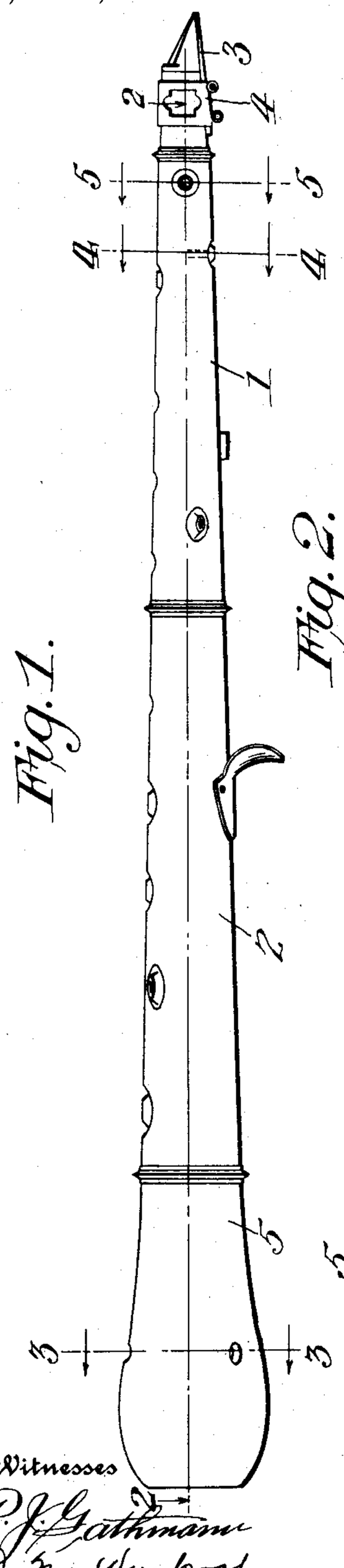

Fig. 1.

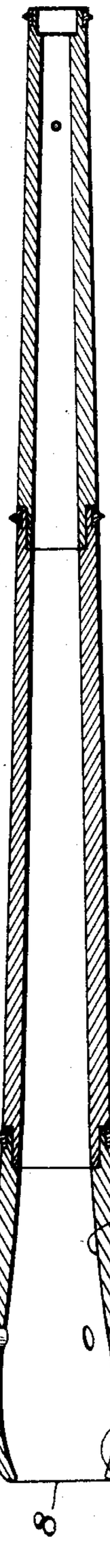

Fig. 2.

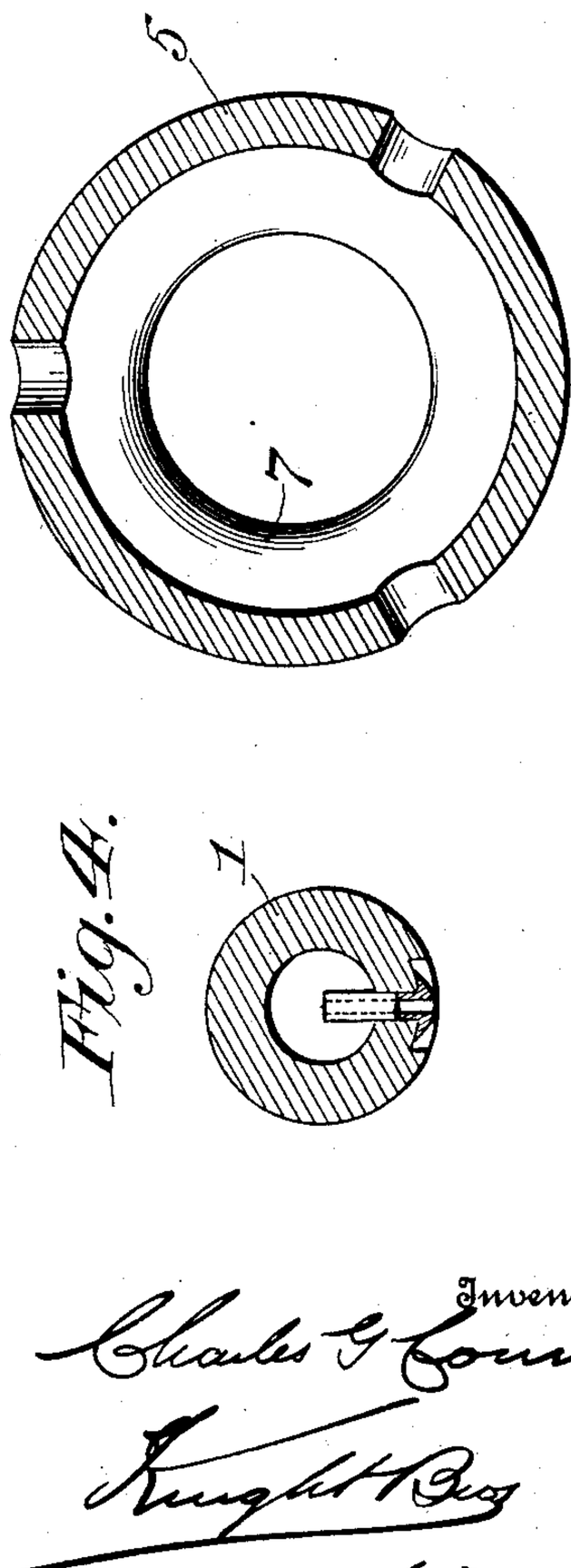

Fig. 3.

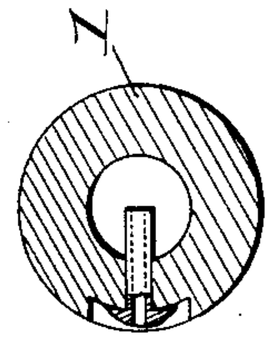

Fig. 5.

Fig. 4.

Witnesses

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2 SHEETS—SHEET 2.

Fig. 6.

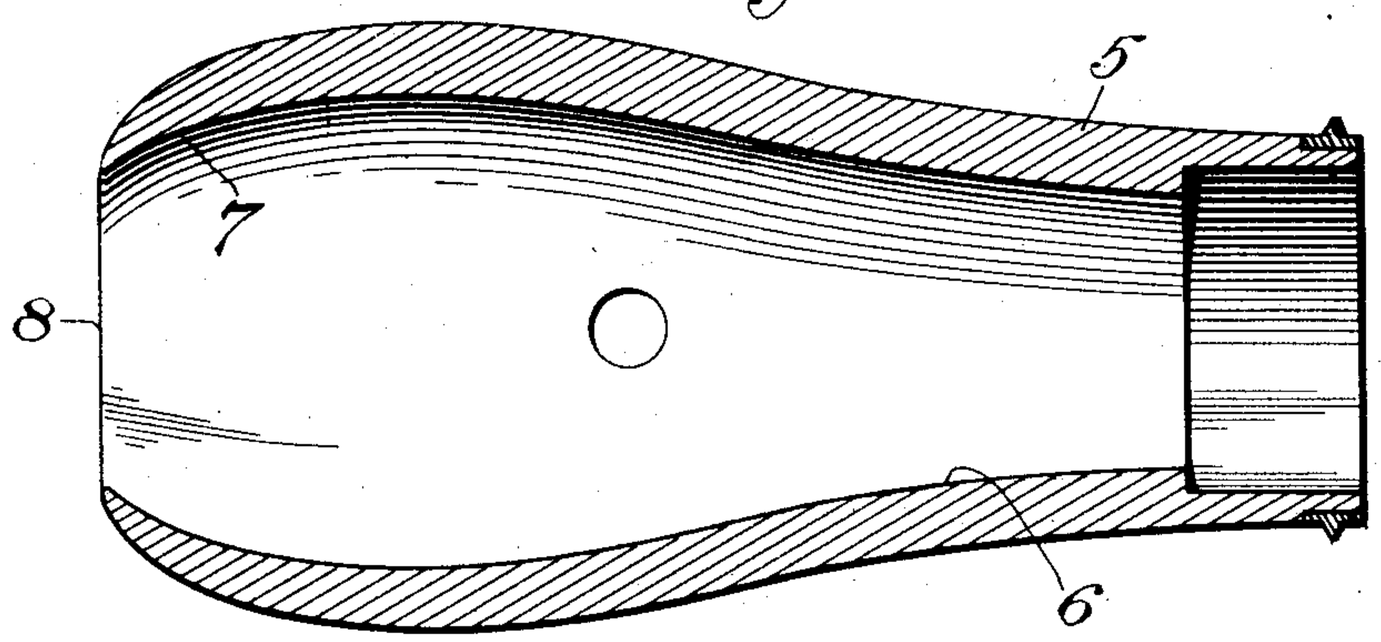


Fig. 7.

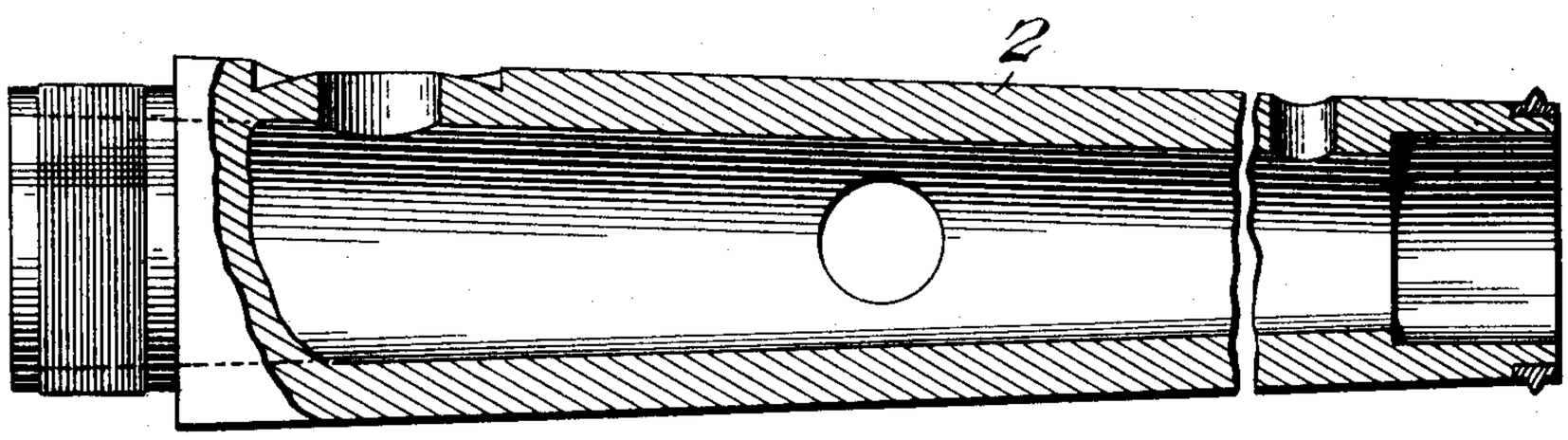
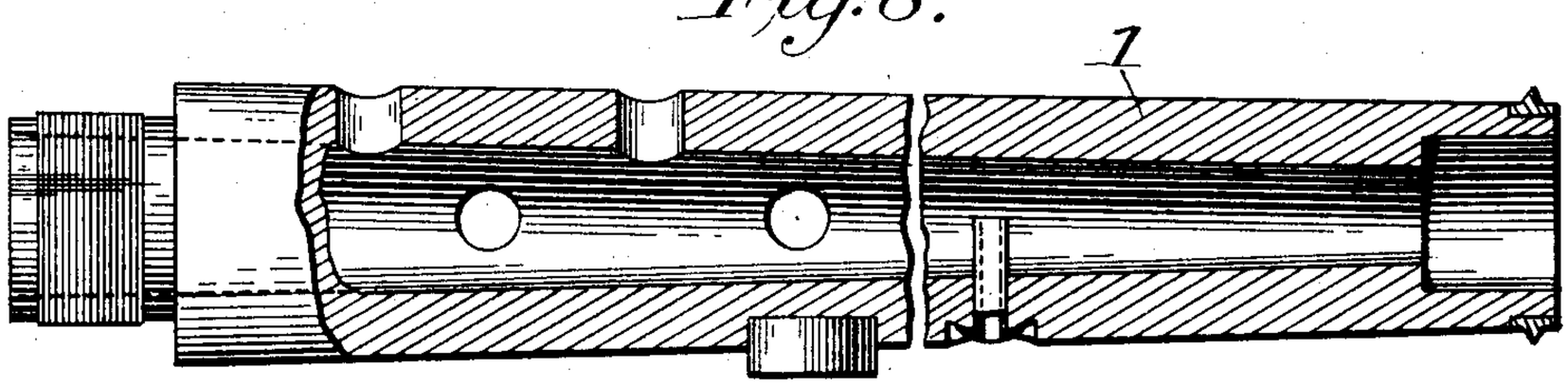


Fig. 8.



Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES G. CONN, OF ELKHART, INDIANA.

REED MUSICAL INSTRUMENT.

1,166,971. Specification of Letters Patent. Patented Jan. 4, 1916.

Application filed October 22, 1913. Serial No. 796,680.

To all whom it may concern:

Be it known that I, CHARLES G. CONN, a citizen of the United States, residing at Elkhart, in the county of Elkhart and State of Indiana, have invented certain new and useful Improvements in Reed Musical Instruments, of which the following is a specification.

This invention relates to an instrument designed to produce tones of certain quality conceived to be desirable for solo as well as for concert playing. It is somewhat analogous to the so-called English horn, but differs therefrom in features of construction which result in decided differences in character and quality of tones produced. The differences in construction are characterized mainly by the absence, from the tones produced, of the nasal quality of the tones of the English horn; also by the simulation of the fine and mellow tones of the saxophone, and the softness and total lack of harshness of the low pitch tones which the instrument produces. The main characteristics of the instrument from which these new conditions result are a single, comparatively large, reed with a mouth piece, such as is usually employed with the clarinet; a straight bore capable of receiving such a mouth piece at its upper end and enlarging conically downward therefrom, so as to produce a relatively large conic bore; and a bulbous end. The bulbous end is preferably provided with a series of perforations, permanently open, and distributed circumferentially, just in advance of the crest of the bulb or swell.

It has been proposed to provide an English horn with a bulbous end, but this feature alone is incapable of producing the effects attainable with my new instrument, because of the absence of other features which I have enumerated as being necessarily combined to produce the results.

In the drawings:—Figure 1 is a side elevation of a reed musical instrument embodying my invention; Fig. 2 is a longitudinal section of Fig. 1 on the line 2—2; Fig. 3 is a section on the line 3—3, Fig. 1; Fig. 4 is a section on the line 4—4, Fig. 1; Fig. 5 is a section on the line 5—5, Fig. 1; Fig. 6 is an enlarged longitudinal section of the bulbous bell of the instrument; Fig. 7 is an enlarged longitudinal section of the middle member of the instrument, parts being in elevation; Fig. 8 is an enlarged longitudinal section of the mouth section of the instrument, parts being in section.

I have not shown any system of keys in connection with this instrument, but it will be understood that the Boehm key system, the ordinary Albert system, or a combination of these two systems, or any other system may be used.

The object of my invention is to produce a single-reed mouth piece musical instrument having a conical bore of increasing diameter from the mouth end to the bell end of the instrument and providing such instrument with a partially closed bulbous bell.

The reference numeral 1 designates the mouth section of the instrument and 2 the middle section of the instrument. 3 is the single reed used on the instrument and 4 is the clamp for securing the single reed in position on the instrument.

As will be seen from Fig. 2, the bore of the instrument is conical and increases in diameter from the mouth of the instrument to the bell end of the instrument.

The bell 5 of the instrument is of bulbous construction with a constricted opening, thus constituting a partially closed bulbous bell. This bell as shown in the drawing is somewhat elongated, the inner walls 6 at the enner end of the bell being substantially a continuation of the conical bore of the instrument, while the inner wall of the bell at 7 is more or less converged and forms a chamber of substantially bulbous shape with a constricted opening 8.

From experiment I have found that the use of the bulbous bell combined with the relatively large conical bore and single-reed mouth piece in an instrument of the character described, shows a more sympathetic and more satisfactory quality of tone. In fact, it enables me to produce an instrument of an entirely new tonal effect, one that will be very satisfactory for use both as a solo instrument, and in large orchestras and military bands.

What I claim is:—

1. A wind musical instrument comprising a mouth piece with a single reed, a tube having a bore adapted at its upper end to receive the single-reed mouth piece and ex-

tending conically therefrom to its lower end, and providing a straight and relatively large conical bore, and a bulbous lower end.

2. A wind musical instrument comprising a mouth piece with a single reed, a tube having a bore adapted at its upper end to receive the single-reed mouth piece and extending conically therefrom to its lower end, and providing a straight and relatively large conical bore, and a bulbous lower end; said bulbous lower end being provided with a circumferential series of relatively small perforations located in advance of the crest of the bulb.

The foregoing specification signed at Elkhart, Ind., this seventeenth day of October, 1913.

CHARLES G. CONN.

In presence of two witnesses—
MAE E. RICHARDSON,
PAULINE WILLIAMS.