

(No Model.)

C. G. CONN.
WIND INSTRUMENT.

No. 343,889.

Patented June 15, 1886.

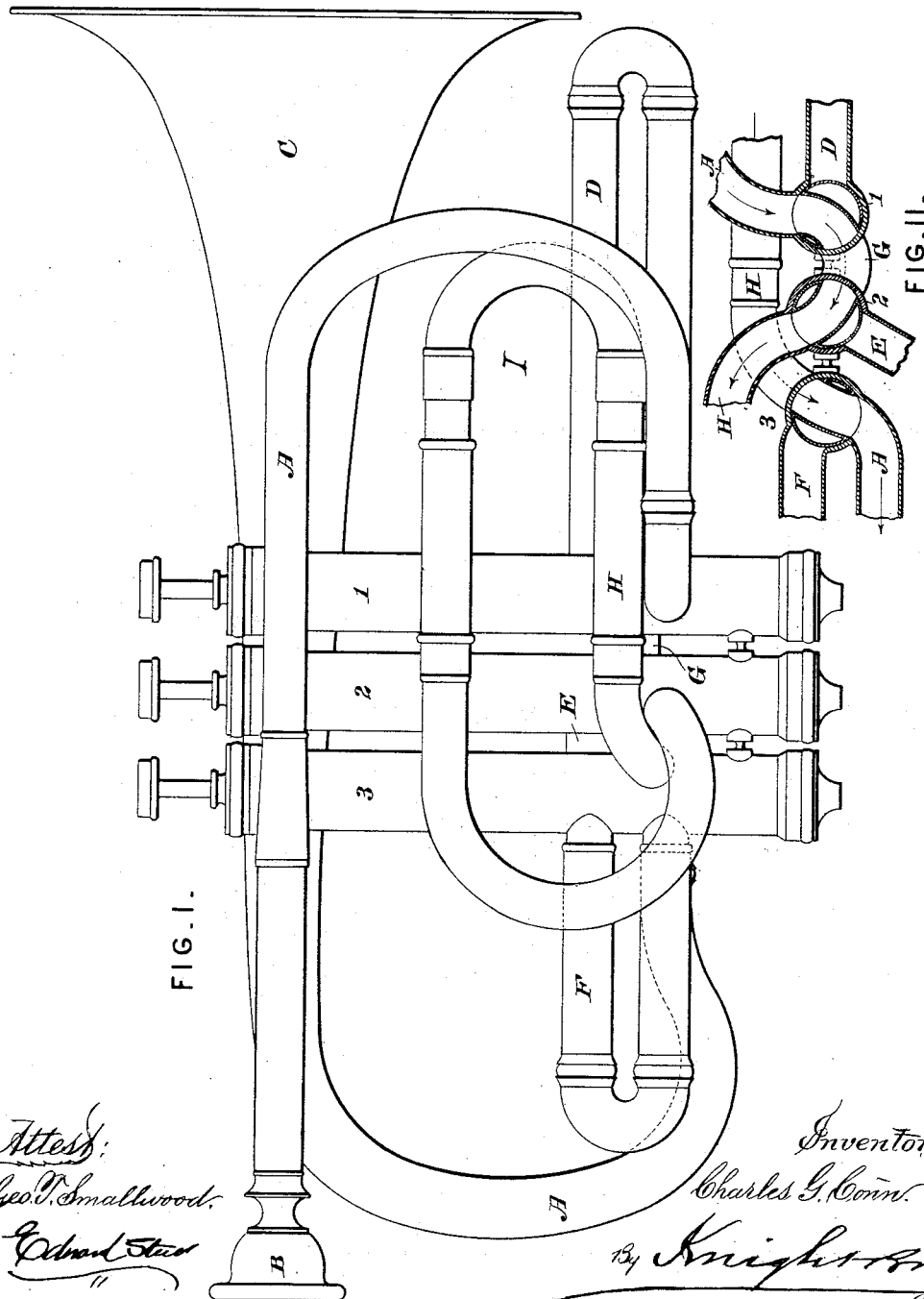


FIG. I.

FIG. II.

Attest:
Geo. T. Smallwood.
Edward Stead

Inventor.
Charles G. Conn.
By *Knights*
Atty

UNITED STATES PATENT OFFICE.

CHARLES G. CONN, OF ELKHART, INDIANA.

WIND-INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 343,889, dated June 15, 1886.

Application filed November 23, 1885. Serial No. 183,643. (No model.)

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 Wind-Instruments, of which the following is a specification.

My improvements relate particularly to wind-instruments—such as cornets—having piston-valves, by the manipulation of which valves the air-passage may be made direct from the mouth-piece to the bell, or may be interrupted by the insertion of a valve-bend.

Heretofore the connection from one valve-cylinder to the next has been by a short straight or curved pipe, and any change in the length of the air-passage outside of the valve-bends for the purpose of tuning or changing pitch had to be made by a change in the length of mouth-pipe. By reason of the short straight section of pipe employed, also, the curves in the air passage were necessarily abrupt, interfering materially with the passage of the air. To obviate these difficulties, I employ a pipe connecting the first and second or second and third valve-cylinders, of sufficient length and so arranged that a movable bend for tuning may be applied, and at the same time the angles of connection with the valve-cylinders may be sufficiently obtuse or rounded not to interfere with the free passage of the air.

In order that the invention may be better understood, I will proceed to describe it with reference to the accompanying drawings, in which—

Figure I represents a side elevation of a cornet embodying my improvements, and Fig. II a section transverse of the valve-cylinders.

The direct air-passage through the cornet, employed for giving an open tone, is shown at A, connecting the mouth-piece B and the bell C. Each of the valve-cylinders 1 2 3 has its proper valve-bend, D E F, arranged with such relation to the passages through the valves as to afford the least possible obstruction to the passage of air.

For connecting the valve-cylinders one with another, I employ a straight or slightly-curved pipe, G, between the cylinders 1 and 2, and a longer pipe, H, between the cylinders 2 and 3, the pipe H being arranged with its members parallel to adapt it to receive a tuning-slide, I. The arrangement here shown may be reversed—that is to say, the pipe H may connect the cylinders 1 and 2, and the pipe G the cylinders 2 and 3, the object of the invention being simply to connect two of the cylinders by a bend of such length as to admit a tuning-slide, and at the same time not interfere with the passage of the air by a too abrupt turn at the points of connection with the cylinders. I am thus enabled to make a perfectly clear free wind-passage without any of the reversed turns or angles found in the ordinary systems of wind-passage, and at the same time make a lighter valve-action by using a shorter and lighter valve-pump, because with those systems where the apertures or holes in the valve-piston are not connected directly I can, by use of the bends with which I construct the tuning-slide, bring these holes or apertures in line with each other. In the old system, to make a clear-bore valve, it is necessary to place one connection above the other, to accommodate the diagonal passage through the valve-piston. Consequently the valve-piston has to be made lower.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. In combination with the valve-cylinders 1 2 3, a bend connecting two of said cylinders, looped as shown, and bent so as to be joined to the cylinders in the same plane, for the purpose set forth.

2. In combination with the valve-cylinders 1 2 3, a bend connecting two of said cylinders, having its members arranged parallel, and a tuning-slide applied thereto, substantially as set forth.

CHARLES G. CONN.

Witnesses:

J. H. GARDNER,
WM. F. SEIDEL.