

(Model.)

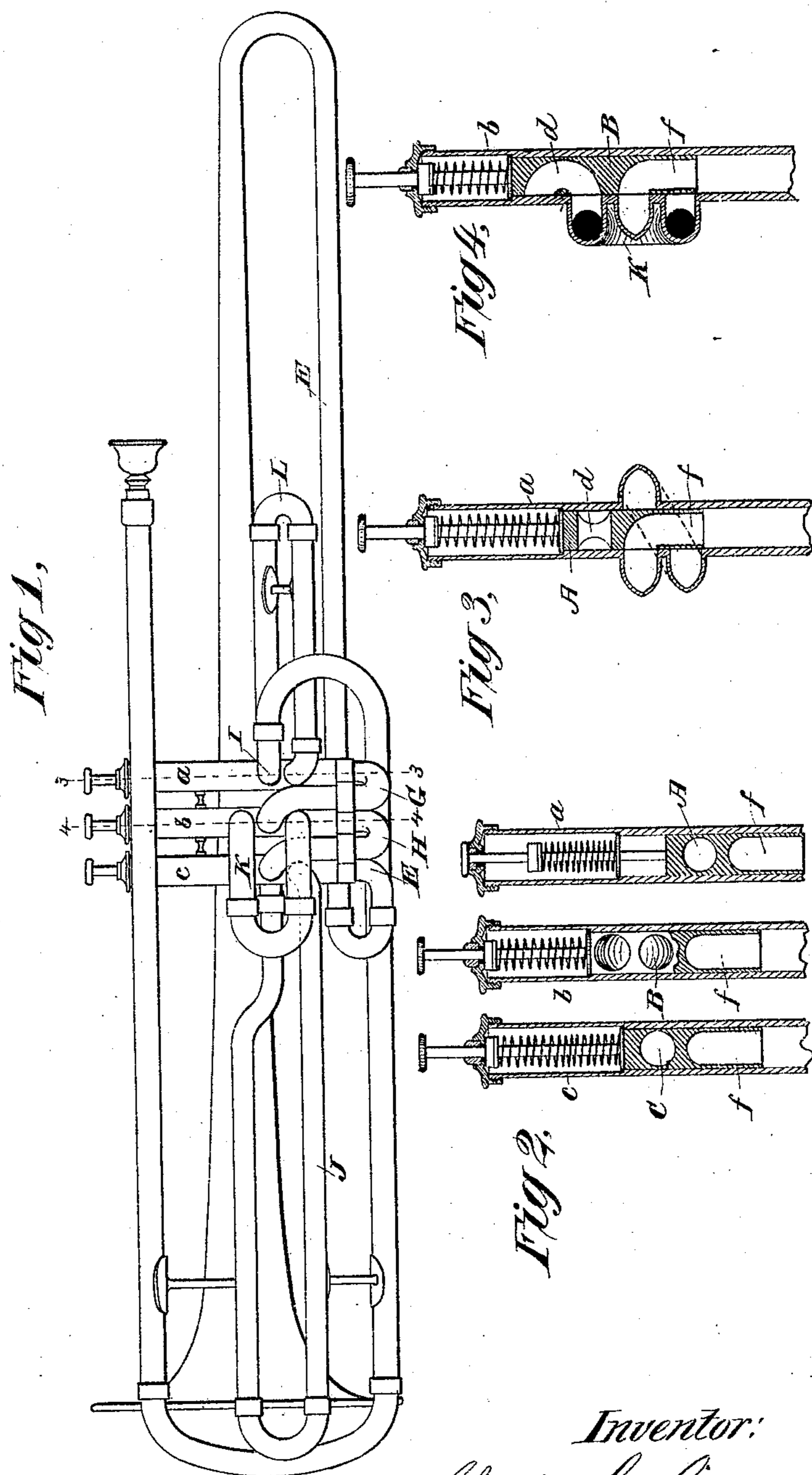
3 Sheets—Sheet 1.

C. G. CONN.

PISTON VALVE MUSICAL INSTRUMENT.

No. 249,012.

Patented Nov. 1, 1881.



Attest:
Geo. T. Smallwood Jr.
L. M. Hopkins

Inventor:
Charles G. Conn.
By Knights Bros attys

(Model.)

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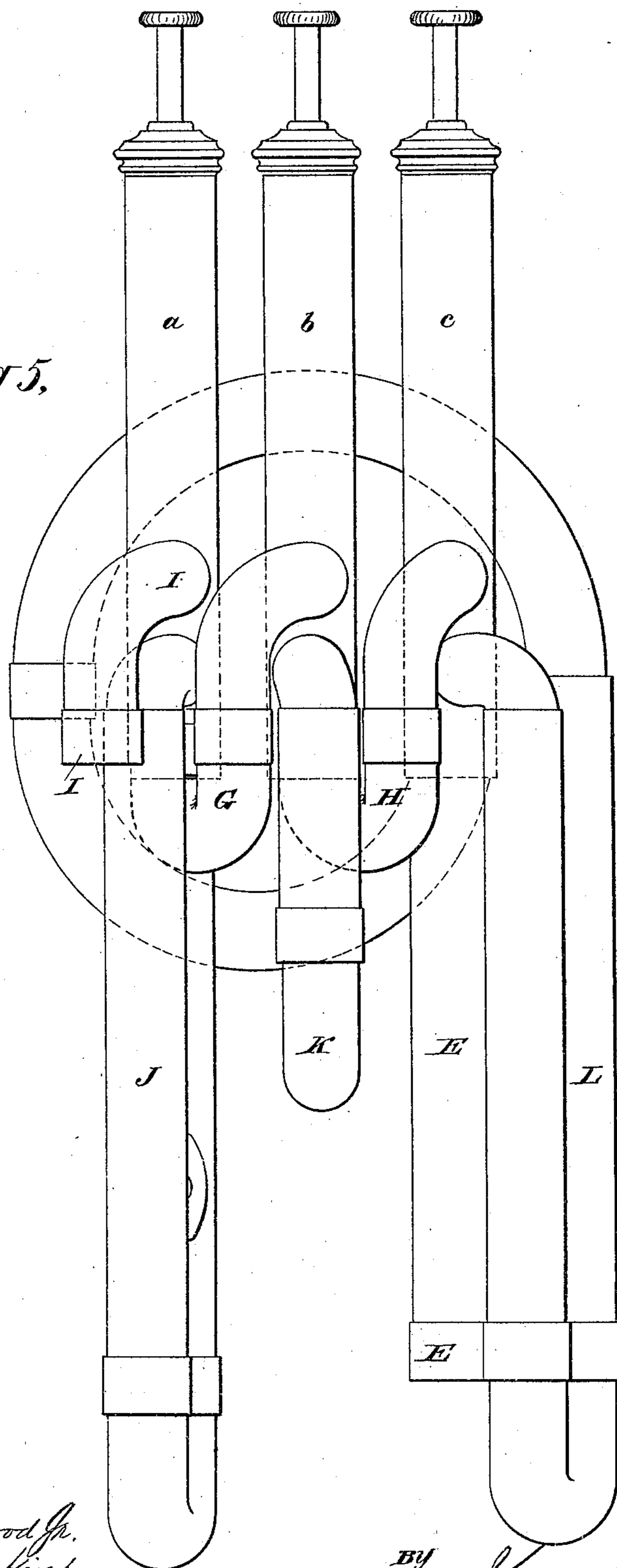
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Fig 5.



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(Model.)

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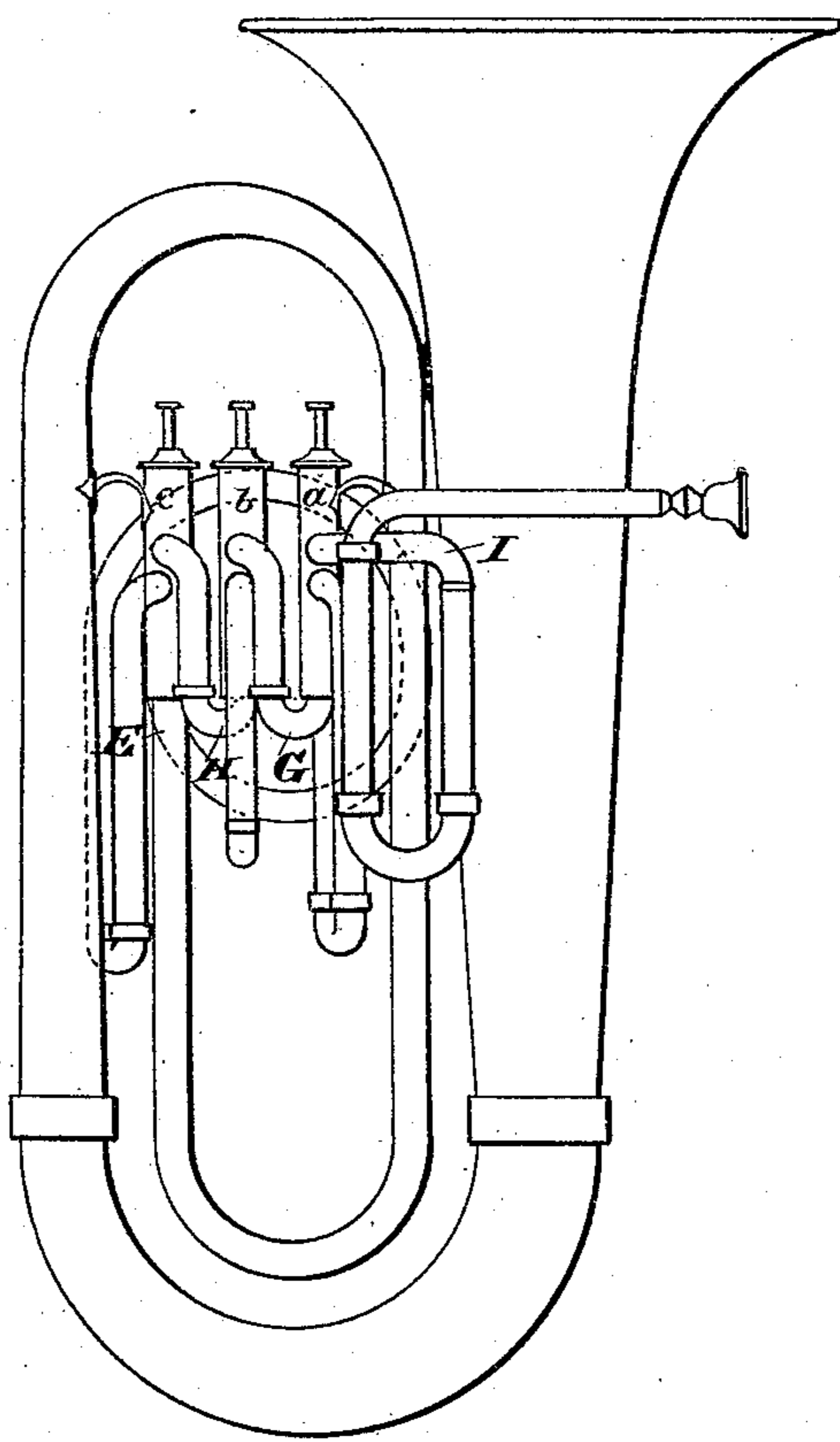
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Fig 6.



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UNITED STATES PATENT OFFICE.

CHARLES G. CONN, OF ELKHART, INDIANA.

PISTON-VALVE MUSICAL INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 249,012, dated November 1, 1881.

Application filed April 2, 1881. (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 a certain new and useful Improvement in Piston-Valve Musical Instruments, of which the following is a specification.

The object of my invention is to produce an instrument with a perfect clear-bore valve and a lighter and better valve-action than instruments of ordinary construction. To this end I construct my valve with a longitudinal bore, using the bottom of the valve-piston for one of the wind-passage apertures; but instead of connecting the adjacent valve-casings by a bend leading from the bottom of one valve to the bottom of the next, as has heretofore been done, I employ a pipe connected longitudinally with the bottom of one valve-casing and delivering transversely into the body of the next, and a pipe connected longitudinally with the bottom of the second valve-casing and delivering transversely into the body of the third, as hereinafter described.

In the accompanying drawings, Figure 1 is a side view of a trombone-à-piston illustrating the invention. Fig. 2 is a vertical section of the three valves thereof, the first valve being shown depressed and the other two in their upper or normal position. Fig. 3 is a vertical section through the first valve at 33, Fig. 1. Fig. 4 is a vertical section of the second valve at 44, Fig. 1. Fig. 5 is a side elevation of the central portion of a cornet embodying the invention. Fig. 6 is a side elevation of a bass-horn embodying the invention.

The ingress from the mouth-pipe is shown at I, and the egress to the bell at E.

A, B, and C are, respectively, the first, second, and third valves, and *a b c* their respective casings. The ingress-pipe I opens into the body or central part of the casing *a*, and the egress-pipe E leads from the bottom of the third casing, *c*.

G H are the direct air pipes or passages communicating from the bottom of the first valve-casing, *a*, to the body or central part of the

second casing, *b*, and from the bottom of the second casing, *b*, to the center or body of the third casing, *c*.

The valves A, B, and C are, respectively, made, as shown, with a transverse air-passage, *d*, passing directly through from side to side, as in Fig. 3, or in knuckle form in and out on the same side, as shown in Fig. 4, as preferred or as the form of the piping may require, and a longitudinal passage, *f*, opening below through the bottom or lower end of the valve and above through a curved port in its side, so as in the normal or upper position of the valves to take the wind, which is delivered horizontally through the body of the casing by the pipe I, G, or H, and deliver it downward through the pipe G, H, or E, as the case may be.

J, K, and L are the valve-bends connected with the respective valve-casings for producing the valve-tones when the valves are depressed, at which time the wind, entering the casing horizontally, as before, instead of passing directly downward to the next communicating pipe, is carried through the passage *d* to the first end of the valve-bends J, K, or L, and after passing through this is delivered to the lateral opening or port of the longitudinal passage *f*, to be conducted to the next connecting-pipe G or H or the egress E.

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

The combination, with valve-casings *a b c*, of the connecting-pipes G and H, leading from the bottom of one valve-casing to the body or central part of the next, and from the bottom of the second to the body or center of the third, and the valves A B C, formed with transverse or knuckle and longitudinal passages *d f*, the latter being arranged to communicate at their upper and lower ends with the upper and lower ends, respectively, of the connecting-pipes G and H, all substantially as shown and described.

CHARLES G. CONN.

Witnesses:

HENRY C. DODGE,
O. H. MAIN.