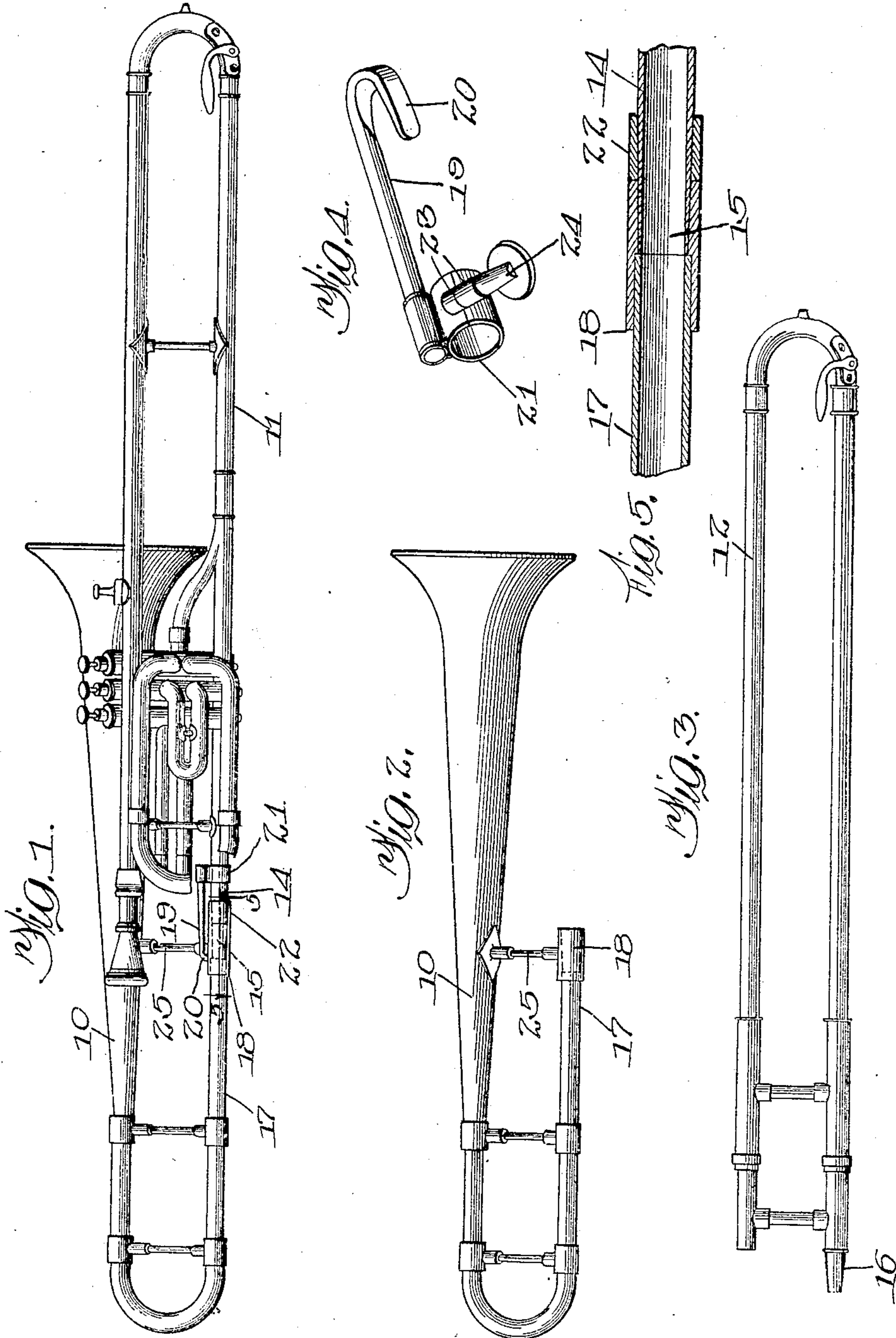


F. HOLTON.  
TROMBONE.

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932,704.

Patented Aug. 31, 1909.



Witnesses:  
Ed Perry  
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# UNITED STATES PATENT OFFICE.

FRANK HOLTON, OF CHICAGO, ILLINOIS, ASSIGNOR TO FRANK HOLTON & COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

## TROMBONE.

932,704.

Specification of Letters Patent.

Patented Aug. 31, 1909.

Application filed August 14, 1907. Serial No. 388,499.

*To all whom it may concern:*

Be it known that I, FRANK HOLTON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Trombones, of which the following is a specification.

This invention relates to improvements in trombones, and the primary object of the same is to construct an improved valve trombone similar to a slide trombone, whereby the trombone may be readily converted from a valve to a slide trombone and vice versa, by the use of a single bell member.

A further object is to provide an improved valve trombone, the bell and the valve members of which are connected by smooth detachable joints, and improved means for detachably securing the members together.

A further object is to provide an improved, simple and efficient clip for holding the parts together.

To the attainment of these ends and the accomplishment of other new and useful objects, as will appear, the invention consists in the features of novelty in the construction, combination and arrangement of the several parts hereinafter more fully described and claimed and shown in the accompanying drawing illustrating an exemplification of the invention, and in which:—

Figure 1 is an elevation, partly broken away, of an improved valve trombone constructed in accordance with the principles of this invention. Fig. 2 is an elevation of the bell member. Fig. 3 is an elevation of a trombone slide. Fig. 4 is a detail perspective view of the connecting or securing clip. Fig. 5 is an enlarged detail sectional view on the line 5—5 of Fig. 1.

In the drawing the numeral 10 designates the ordinary bell member, 11 the valve-containing member of a valve trombone, and 12 designates the slide member of a slide trombone.

In the present exemplification of the invention, the end 14 of the valve-containing member 11, is formed with a smooth extremity 15, similar to the extremity 16 of the slide 12.

The end 17 of the bell member is provided with an enlarged tubular extremity 18 having a smooth bore constructed in the manner similar to the extremity of the present bell members, and said tubular extremity 18 is

adapted to receive the smooth extremity 15 of the end 14 of the valve-containing member 11, that is, the extremity 15 of the valve-containing member is adapted to telescope with the tubular extremity 18 of the bell member to form a smooth detachable joint.

Any suitable means may be provided for detachably securing the bell member 10 and the valve-containing member 11 against displacement with relation to each other and when the trombone is in use. A suitable and efficient means for accomplishing this purpose comprises a member 19, one extremity of which is formed into a hook shaped portion 20. Secured to the other extremity thereof is a clip 21 which is preferably in the form of a split collar, this collar being adapted to surround and slide loosely upon one of the members, preferably the valve-containing member 11, and is held against displacement with relation to said member by means of a suitable collar or shoulder 22. The extremities of the collar 21 are preferably provided with projecting ears 23 through which a suitable clamping screw 24 is adapted to draw the ends of the collar together for clamping the collar in position on the valve-containing member.

When it is desired to use the valve-containing member 11, the extremity 15 thereof is telescoped into the tubular extremity 18 of the bell member, and the collar 21 is adjusted upon the valve-containing member 11 to such a position that the hook shaped extremity 20 of the member 19 will engage one of the braces 25 of the bell member 10, and when in engagement with the brace, the collar 21 may be moved upon the valve-containing member 11 to the proper position for holding the parts securely together and when so adjusted the clamping screw 24 may be tightened to cause the collar 21 to grip the valve-containing member 11 to hold the clip in its adjusted position.

When it is desired to convert the trombone into a slide trombone, all that is necessary is to loosen the clamping screw 24 so that the collar 21 may be moved upon the valve-containing member 11 to such a position that the hook shaped extremity 20 thereof may be disengaged from the brace 25 of the bell member 10, after which the two members may be separated by drawing the extremity 15 of the valve-containing member out of the tubular extremity 18 of the bell member.



When detached, the member 19 is permitted to remain upon the valve-containing member 11. After the bell has been detached, the slide 12 may be attached to the bell in the ordinary and well known manner that the slides of all trombones are attached to the bell.

In constructing an improved valve trombone according to the principles of this invention, the tubular extremity 18 of the bell member and the extremities 15 of the valve-containing member, and 16 of the slide member 12 are all constructed of a standard or uniform size, so that the bell may be readily attached to either the valve-containing member or the slide member, and when so attached an efficient joint will be formed.

It will be noted that with this improved construction of trombone, it is possible to possess a valve and a slide trombone by the use of a single bell, and that the trombone may be readily converted from one to the other, as occasion may require, thereby materially reducing the expense of two trombones.

In order that the invention might be fully understood by those skilled in the art, the details of the foregoing embodiment have been thus specifically described, but

What I claim as new, and desire to secure by Letters Patent is:

1. A valve trombone comprising a bell member and a valve containing member connected by a smooth joint, and means comprising a clip separate from the joint for detachably securing the members together.

2. A valve trombone comprising a bell member and a valve-containing member con-

nected by a smooth joint, and means other than the joint for detachably securing the members together, said means comprising a clip adjustably supported by one of the members and detachably engaging the other member.

3. A valve trombone comprising a bell member and a valve-containing member connected by a smooth joint, means other than the joint for detachably securing the members together, said means comprising a clip adjustably supported by one of the members and adapted to engage the other member, and means for holding the clip in its adjusted position.

4. A valve trombone comprising a bell member and a valve-containing member connected by a smooth joint, and a clip detachably securing the members together, said clip comprising a collar surrounding one of the members and a hook shaped portion engaging the other member.

5. A trombone containing a bell member and a valve-containing member connected by a smooth joint, a clip for detachably securing the members together, said clip comprising a collar surrounding and adjustable upon one of the members and a hook shaped portion engaging the other member, and means for securing the clip in its adjusted position.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 3rd day of August A. D. 1907.

FRANK HOLTON.

Witnesses:

J. H. JOCHUNE, Jr.,  
FRANCIS A. HOPKINS.