T. J. & G. O. WOOLCOCKS.
Speaking-Tube.

No. 200,420. **Patented Feb. 19, 1878.**

FIG. 1.

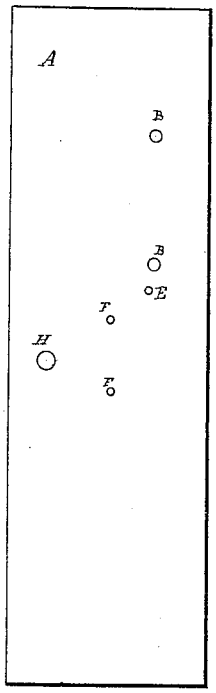


FIG. 2.

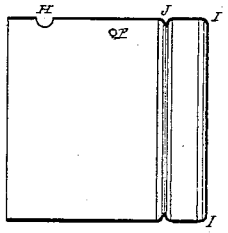


FIG. 3.

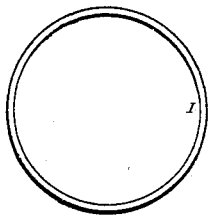


FIG. 4.

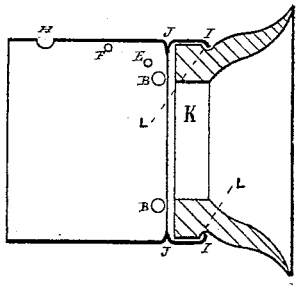
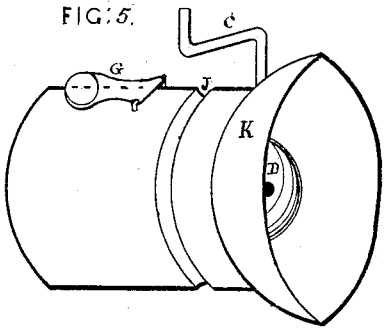


FIG. 5.



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UNITED STATES PATENT OFFICE.

THOMAS J. WOOLCOCKS AND GEORGE O. WOOLCOCKS, OF JERSEY CITY, NEW JERSEY.

IMPROVEMENT IN SPEAKING-TUBES.

Specification forming part of Letters Patent No. **200,420**, dated February 19, 1878; application filed December 31, 1877.

To all whom it may concern:

Be it known that we, THOMAS J. WOOLCOCKS and GEORGE O. WOOLCOCKS, of Jersey City, in the county of Hudson and State of New Jersey, have invented a new and useful Improvement in the Manufacture of Speaking-Tube Whistles, of which the following is a specification, reference being had to the accompanying drawings, forming a part of the same, the same letters of reference, wherever they occur in the drawings, referring to like parts.

Figure 1 represents a blank of metal from which the barrel or tube is formed. Fig. 2 represents the speaking tube or barrel as formed from the blank. Fig. 3 represents an upper-end view of the same. Fig. 4 represents a longitudinal cut-section of the same, having the porcelain mouth-piece combined therewith without the use of solder or other plastic cement. Fig. 5 is a representation of the completed speaking-tube whistle.

The object of our invention is twofold—first, to save labor in the manufacture of speaking-tube whistles, and, second, to cheapen the same by the use of a less quantity of metal than is required by the old or common way of making them; and the nature of our invention consists in making the speaking tube or barrel from a single blank of metal by means of suitable rollers, rolling the blank of metal into a cylindrical form, and at the same time contracting the diameter of the upper end of the metal, so as to clasp into a channel or groove in the neck of the mouth-piece of the whistle, and thus, when the longitudinal sides of the barrel are soldered, making a solid and permanent union of the barrel with the porcelain mouth-piece.

Letter A represents a blank of sheet-tin or other suitable metal, having two holes, B B, for inserting therein the lever C, on which the valve or whistle D is secured; also, a hole, E, into which the end of a valve-lever spring is secured solidly, the other end being secured to the lever, thus causing it to react to shut the valve after being opened; also, two other holes, F F, into which the hinge of an indicator-fly, G, is secured, and also another hole, H, the indicator-fly vent. At the time of forming the blank, these several holes are all cut. When the blank is thus prepared, it is next passed between forming-rollers, to round it up into a cylindrical shape, and swage up or contract the diameter of the upper end of the barrel, as represented by the letters I, Figs. 2, 3, and 4.

The groove J in the barrel is intended more for giving finish or relief to the sameness of appearance in the barrel, if of uniform diameter from end to end, than as a material matter of construction, though in some respects it acts as a seat or bearing for the base of the mouth-piece K to rest against.

Around the neck of the mouth-piece is formed a channel or groove, L, Fig. 4, into which the contracted flange I engages to hold the mouth-piece securely into the end of the barrel. This is effected by springing the end of the barrel over the ledge at the base of the mouth-piece before the longitudinal sides of the barrel are soldered up. When thus adjusted, the barrel is firmly clasped upon the mouth-piece, and then solidly secured thereon by soldering the longitudinal sides of the barrel together. The valve and indicator-fly are then secured into the barrel in the ordinary way.

Having now described our invention, we will proceed to set forth what we claim and desire to secure by Letters Patent of the United States:

As a new article of manufacture, the barrel of a speaking-tube made from a single blank of metal, with a contracted flange, I, at its upper end, in combination with the channel or groove L on the neck of the mouth-piece K, as a means of uniting them solidly together without soldering or other cementing process, substantially as described.

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Witnesses:
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