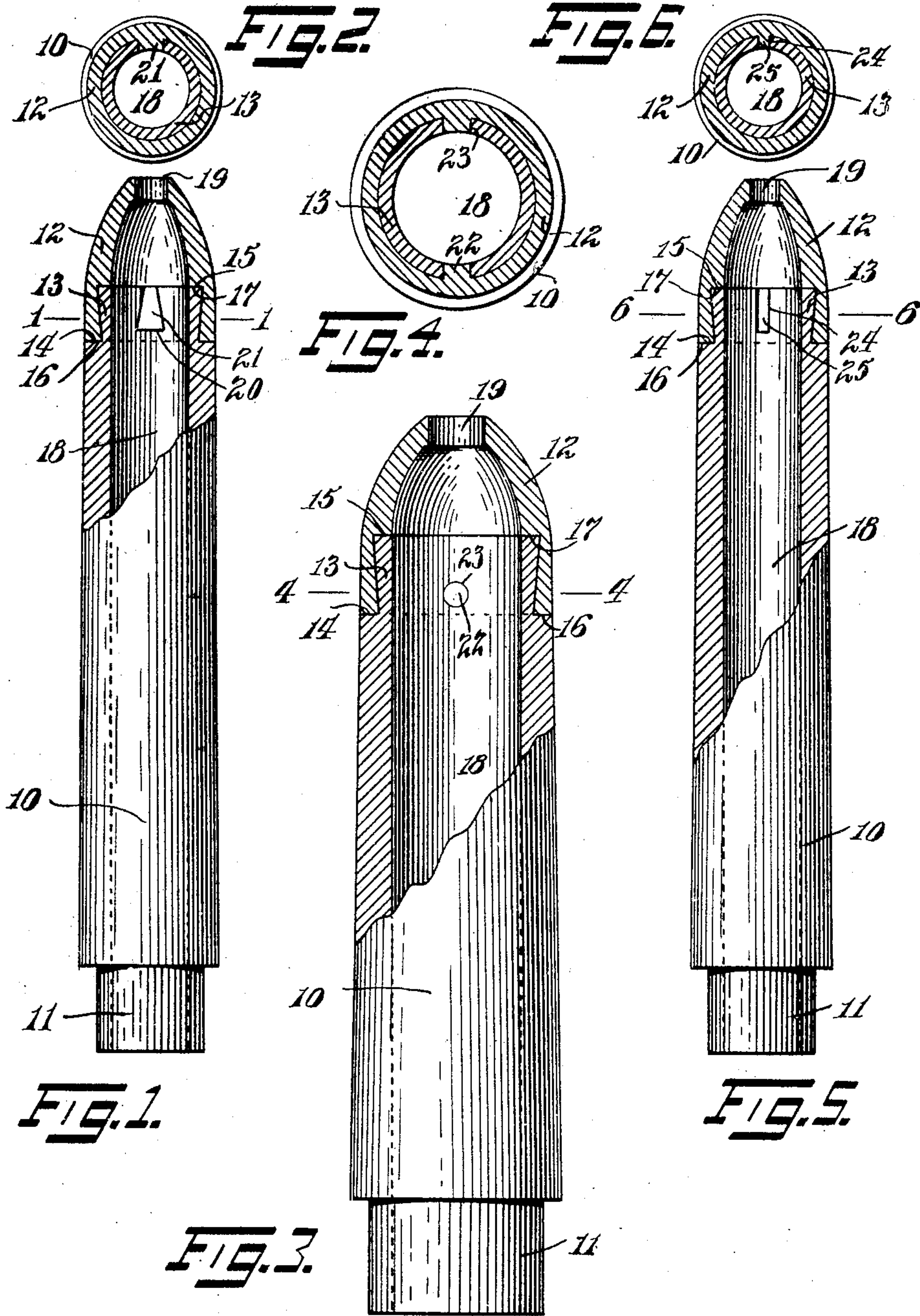


No. 844,613.

PATENTED FEB. 19, 1907.

F. McCOLLUM.  
ORGAN PIPE FOOT.  
APPLICATION FILED DEC. 20, 1906.



Witnesses:

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# UNITED STATES PATENT OFFICE.

FENELON McCOLLUM, OF MANSFIELD DEPOT, CONNECTICUT.

## ORGAN-PIPE FOOT.

No. 844,613.

Specification of Letters Patent.

Patented Feb. 19, 1907.

Application filed December 20, 1906. Serial No. 348,723.

*To all whom it may concern:*

Be it known that I, FENELON McCOLLUM, a citizen of the United States, residing in Mansfield Depot, in the county of Tolland and State of Connecticut, have invented certain new and useful Improvements in Organ-Pipe Feet, of which the following is a specification.

This invention relates to improvements in organ-pipe feet; and it has for its object to provide a new article of manufacture which will be an improvement upon the organ-pipe foot disclosed in my United States Letters Patent No. 608,704, dated August 9, 1898, for pipe-organ foot, the principal object of this present improvement being to prevent the rotation of the metal toe relative to the wooden body portion of the foot.

On voicing the organ an instrument is used which has a conical point at one end and a conical recess at the other, and the voicer will insert this point in the opening in the toe when he desires to enlarge the same for permitting the passage of more wind, and when he desires to reduce the wind-opening to admit a smaller volume of wind he will reverse the voicing implement and apply the conical recess to the outside of the toe, and thereby compress the same and contract the opening. In the use of this instrument it is pressed against the metal of the toe and given a rotary movement, which has a tendency to cause the toe to rotate upon the wooden portion, thereby in some instances loosening the same and permitting the escape of the wind, which of course is undesirable. My present improvement provides means whereby the toe may be securely prevented from rotation, and this at a minimum expense. This will be done by some form of key which will be carried by the toe and engage a key-seat in the body portion. The body portion may be provided with some suitable key seat or opening, and when the toe is cast upon the body portion the metal will flow into the key-seat, and thereby form a key.

In the drawings accompanying and forming a part of this specification, Figure 1 represents a side view of a practicable embodiment of a form of my invention, the toe portion of the foot therein illustrated being shown in longitudinal section. Fig. 2 is a cross-sectional view taken in about the line 1 1 of Fig. 1 and looking down. Fig. 3 is a view similar to Fig. 1, but showing a larger size foot and also

a different manner of forming the key. Fig. 4 is a section taken in about the line 4 4 of Fig. 3. Fig. 5 is a view similar to Figs. 1 and 3, but showing a still different form of key; and Fig. 6 is a cross-section taken in about the line 6 6 of Fig. 5.

The body portion 10 of the foot may be of such construction as is illustrated in my before-mentioned Letters Patent and will preferably be of wood or of some similar material having the proper resonant qualities. This body portion is shown as having a neck 11 for connection with the organ-pipe.

In use the foot will be so situated in most instances that a neck portion 11 will be at the upper end and the toe will be at the lower end; but for the purposes of the present description it has been found more convenient to place the views in an inverted position. The lower end of the foot will be provided with a suitable surface for receiving the cast-metal toe 12, which toe will be made out of some metal which fuses at a low temperature.

The manner in which I most generally prepare the end of the foot for receiving the toe is by producing a flaring tenon 13 upon such end, which tenoning of the end will present a shoulder or abutment 14, and the end of the tenon will constitute another abutment or shoulder. I do not desire to limit myself to the flaring-ended tenon, although practice has demonstrated that it is a commercially-successful article. About the tenon will be cast the toe portion, so that it will have faces 16 and 17 abutting the shoulders 14 and 15. This will permit the joint or juncture between these parts to withstand the pressure of the weight of the organ-pipe, which will be attached to the neck 11 of the foot. The body portion of the foot, of course, is hollow, as indicated at 18, and the toe will have an opening 19 for permitting passage of the wind, the toe being given a conical shape whereby it may seat in the openings leading from the wind-chest.

The form illustrated herein and above described prevents the toe member moving away from the organ-pipe under normal conditions; but when it is desired to voice the pipe an instrument having a conical end will be inserted into the opening 19 if this is too small, and if it is too large an instrument having a conical recess will be placed upon the outside of the toe for the purpose of reducing the opening 19, and in both such op-



erations the instrument will be given a rotary or turning movement, which will have a tendency to turn the toe upon the body portion, and to prevent this I have employed a key connection between the parts. The body portion, preferably the tenon, if a tenon is employed, will have a key-seat made in it, and the toe will carry a key seated in such key-seat.

10 In Figs. 1 and 2 the key-seat 20 and the key 21 are shown as dovetailed, so that in this instance there is presented a compound dovetail for holding the parts together. The flaring tenon being in the nature of a dovetail and the key being a dovetail will present great opposition to pulling it out of the tenon as well as preventing the rotation of the same.

15 In Figs. 3 and 4 there are illustrated a number of circular key-seats and keys 22 and 23, respectively. This is of peculiar advantage in large feet, although it may be used in the other forms. It will be noticed in this instance that the key-seat is situated well up on the tenon toward the body portion.

25 In Figs. 5 and 6 the key-seat 24 is shown as having straight sides and the key 25 as being a straight-sided web.

In my before-mentioned patent the operation of casting the toe upon the body portion and the action of the wood in shrinking when the heat of the metal is applied to it, and thus permitting the metal to encroach upon the region from which it shrank before the metal cools, and subsequent swelling of the wood  
35 when it absorbs the normal amount of mois-

ture from the atmosphere is gone into sufficiently, and applicant will merely make reference thereto, with the statement that in the present instance the same interactions will take place and the toe be thereby securely held upon the body portion. 40

Having described my invention, I claim—

1. As an article of manufacture, an organ-pipe foot comprising a wooden body portion and a separate soft-metal toe cast around the end of said body portion and thereby firmly secured to the same, said body portion having a key-seat, and a key carried by said toe and seated in said key-seat. 45

2. As an article of manufacture, an organ-pipe foot comprising a wooden body portion having at its end a flaring tenon, a separate soft-metal toe cast around the said tenon and thereby firmly secured to the same, said body portion having a key-seat, and a key seated in said key-seat and carried by said toe. 50 55

3. As an article of manufacture, an organ-pipe foot comprising a wooden body portion having at its end a flaring tenon, a separate soft-metal toe cast around said tenon and forming a dovetail-joint connection with the same, said tenon having an undercut key-seat, and a key in said seat cast integrally with said toe and having a dovetail-joint connection with said seat. 60

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