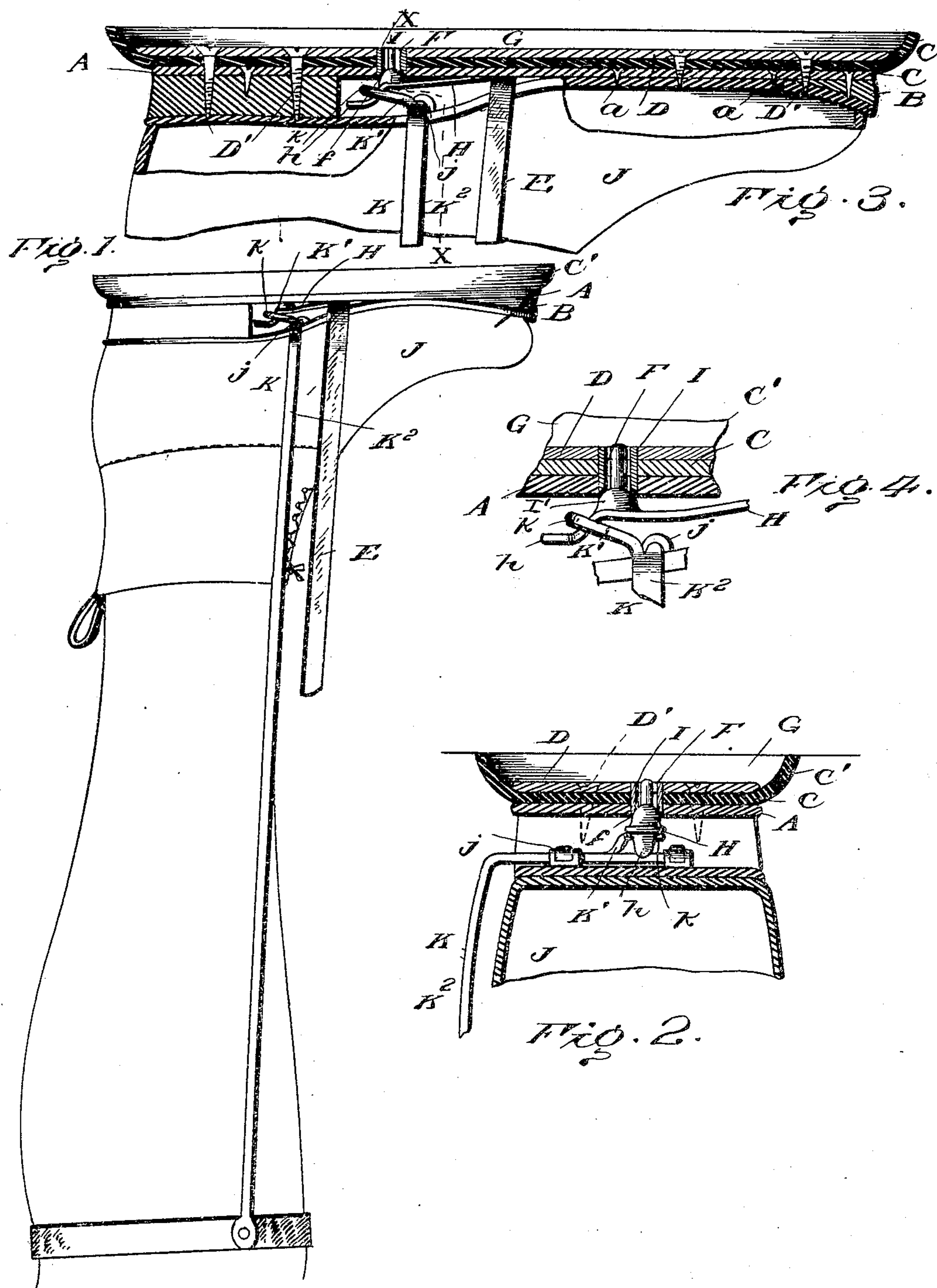


No. 792,481.

PATENTED JUNE 13, 1905.

V. WAID.
THEATRICAL DEVICE.
APPLICATION FILED JUNE 8, 1904.



Witnesses
for Invention
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UNITED STATES PATENT OFFICE.

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THEATRICAL DEVICE.

SPECIFICATION forming part of Letters Patent No. 792,481, dated June 13, 1905.

Application filed June 8, 1904. Serial No. 211,714.

To all whom it may concern:

Be it known that I, VICTOR WAID, a citizen of the United States, residing at Eastlake, in the county of Jefferson and State of Alabama, have invented certain new and useful Improvements in Theatrical Devices, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in theatrical devices.

The object of my invention is to provide an attachment for the shoe or foot whereby a person may be more securely supported from the under side of a smooth surface in an inverted or upside-down position and at the same time providing means whereby the person may move his feet and walks in the afore-stated position.

My invention consists in forming a chamber in which suction or vacuum is formed, thus causing the same to firmly adhere to the surface to which it is applied and at the same time providing means operated by the movement of the legs for relieving said suction or vacuum, thus allowing the feet, one at a time, to be raised, or both, when desired.

In the accompanying drawings, Figure 1 shows an enlarged side elevation of the leg of a person, showing my device applied thereto. Fig. 2 is a transverse sectional view taken on the line *xx* of Fig. 3. Fig. 3 is a longitudinal view of a shoe, partly in section, showing the device attached thereto. Fig. 4 is an enlarged sectional view of the valve and valve-opening mechanism.

Referring now to the drawings, A represents the main body portion of my improved device, which may be made of any desired material, but is preferably made of a flat stiff piece of leather, as shown, and is made of a size and shape approximately that of a shoe and is either nailed or screwed to the sole of the ordinary shoe by screws or nails *a*. The front end of said piece of leather A is provided with a curved block B, which is adapted to fit the curvature of the toe of the shoe, and thus the leather A is caused to lie perfectly flat. Resting against the said leather body portion A is a piece of rubber C, which is

of the same shape, but of a size slightly larger, thus leaving the downwardly-extending flange C' surrounding the outer edge of the body portion A. Resting against the under side of the said piece of rubber C is a thin metal plate D, which is of a size and shape of the leather body portion A. Passing through the said metal plate and the rubber and the leather are screws D', which enter the sole and heel of the shoe and by means of which my device is firmly secured to the shoe. Secured to the upper face of the leather A about midway its length is a strap E, which is adapted to extend upward over the shoulders of the wearer, and thus the weight of the body is not supported by the legs or feet, but is wholly supported by the said strap. Passing through the said metal plate, the rubber, and the leather is an opening F, through which passes a tube I, which is preferably of metal and has its upper end ground to form a smooth valve-seat *f*, the said lower end of the tube communicating with the suction-chamber G below the metal plate and formed by the flange C'.

Secured to the upper face of the leather strip A is a spring H, which is provided intermediate its ends with the valve I', which is adapted by the action of the spring to firmly seat itself in the seat *f*, and thus there is an air-tight suction-chamber G, which is adapted to firmly hold upon the wall of ceiling and which cannot be removed when said valve is seated. The extended end *h* of the spring is curved in a practically horizontal line, the purpose of which I will now proceed to describe.

Pivotaly connected to the under side of the shoe J at *j* is a lever K, which is provided with an outwardly-extending member K', which is provided with a laterally-extending end *k*, which passes under the extended end *h* of the spring H and by means of which the valve is unseated and the suction or vacuum in the chamber G is relieved. The said lever K is provided with an upwardly-extending portion K², which is secured to the leg of the wearer, and thus the bending of the leg rocks the lever K and causes the end *k* to raise the valve, and thus allows the foot to be removed

from the wall, ceiling, or other place, and when the leg is straightened the valve is again closed.

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

1. A device of the character described, comprising a suction device, means for securing it to the foot, and a valve for relieving said suction.
10 tion.

2. A device of the character described, comprising a suction-chamber, means for securing it to the foot, a valve in communication with said suction-chamber, and means for operating the valve.
15 ing the valve.

3. A device of the character described, comprising a suction-chamber, means for securing the same to the foot, and a spring-closed valve in communication with said suction-chamber, and means for operating the valve.
20 chamber, and means for operating the valve.

4. A device of the character described, comprising a suction-chamber, means for securing the same to the foot, a valve in communication with said suction-chamber, and means for opening and closing said valve.
25 for opening and closing said valve.

5. A device of the character described, comprising a suction-chamber, means for securing the same to the foot, a valve in communication with said suction-chamber, and means operated by the leg for opening said valve.
30 operated by the leg for opening said valve.

6. A device of the character described, comprising a suction-chamber, means for securing the same to the foot, a valve in communication with said suction-chamber, means operated by the leg for opening said valve, and means for automatically closing said valve.
35 ated by the leg for opening said valve, and means for automatically closing said valve.

7. A device of the character described, comprising a suction-chamber, means for securing the same to the foot, a valve in communication with said suction-chamber, an arm operating said valve and secured to the leg of the wearer, and means for automatically closing the said valve.
40 tion with said suction-chamber, an arm operating said valve and secured to the leg of the wearer, and means for automatically closing the said valve.

8. A device of the character described, comprising a plate, means for securing the same to the foot, an outwardly-projecting rubber flange carried by the plate, and a valve for relieving the vacuum within said flange.
45 prising a plate, means for securing the same to the foot, an outwardly-projecting rubber flange carried by the plate, and a valve for relieving the vacuum within said flange.

9. A device of the character described, comprising a shoe, a leather plate, a rubber plate, a steel plate, screws passing through said plates and securing them to the sole of the shoe, an opening passing through said plates, a valve closing the upper end of said opening.
50 prising a shoe, a leather plate, a rubber plate, a steel plate, screws passing through said plates and securing them to the sole of the shoe, an opening passing through said plates, a valve closing the upper end of said opening.

10. A device of the character described, comprising a shoe, a leather plate resting against the sole of the shoe, a rubber plate resting against said leather plate and of a size slightly larger than the leather plate, thus forming a downwardly-extending rubber flange, a metal plate resting against said rubber plate, screws passing through said plates and securing them to the sole of the shoe, said plate having an opening therethrough, a valve closing the up-
60 downwardly-extending rubber flange, a metal plate resting against said rubber plate, screws passing through said plates and securing them to the sole of the shoe, said plate having an opening therethrough, a valve closing the up-

per end of said plate adjacent the sole of the shoe, and a lever operated by the bending of the leg for opening said valve, thus relieving the suction within the downwardly-extending rubber flange.
65 shoe, and a lever operated by the bending of the leg for opening said valve, thus relieving the suction within the downwardly-extending rubber flange.

11. A device of the character described, comprising a shoe, a plate, a rubber plate, a steel plate, screws passing through said plates and securing them to the sole of the shoe, and said plates having registering openings therein, a spring-pressed valve closing said opening, and means operated by the bending of the leg for opening said valve.
70 prising a shoe, a plate, a rubber plate, a steel plate, screws passing through said plates and securing them to the sole of the shoe, and said plates having registering openings therein, a spring-pressed valve closing said opening, and means operated by the bending of the leg for opening said valve.

12. A device of the character described, comprising a shoe, a suction-chamber carried by the shoe, a spring-pressed valve in communication with said suction-chamber, and means operated by the leg for opening said valve.
80 prising a shoe, a suction-chamber carried by the shoe, a spring-pressed valve in communication with said suction-chamber, and means operated by the leg for opening said valve.

13. A device of the character described, comprising a shoe, a suction-chamber carried by the shoe, a valve in communication with said suction-chamber, a pivoted lever operated by the leg for opening said valve, and means for automatically closing said valve.
85 prising a shoe, a suction-chamber carried by the shoe, a valve in communication with said suction-chamber, a pivoted lever operated by the leg for opening said valve, and means for automatically closing said valve.

14. A device of the character described, comprising a shoe, a suction-chamber carried by the shoe, a valve in communication with said suction-chamber, a lever pivoted to the under side of the shoe and operatively connected to said valve and connected with the leg and adapted to open said valve.
90 prising a shoe, a suction-chamber carried by the shoe, a valve in communication with said suction-chamber, a lever pivoted to the under side of the shoe and operatively connected to said valve and connected with the leg and adapted to open said valve.

15. A device of the character described, comprising a shoe, a suction-chamber having an opening therein, means for securing the same to the shoe, a spring-arm adjacent said opening, a valve carried by the arm and normally closing said openings, a pivoted lever carried by the sole of the shoe and passing under said arm, whereby the valve is released.
95 prising a shoe, a suction-chamber having an opening therein, means for securing the same to the shoe, a spring-arm adjacent said opening, a valve carried by the arm and normally closing said openings, a pivoted lever carried by the sole of the shoe and passing under said arm, whereby the valve is released.

16. A device of the character described, comprising a suction-chamber, having an opening communicating therewith, means for securing the same on the shoe, a spring-arm adjacent said opening, a valve carried by the arm and normally closing said opening, a lever pivoted to the under side of the sole of the shoe and having an extended end passing under the spring-arm, and said lever having an extended arm passing up and secured to the leg of the wearer, whereby the bending of the leg opens said valve.
100 prising a suction-chamber, having an opening communicating therewith, means for securing the same on the shoe, a spring-arm adjacent said opening, a valve carried by the arm and normally closing said opening, a lever pivoted to the under side of the sole of the shoe and having an extended end passing under the spring-arm, and said lever having an extended arm passing up and secured to the leg of the wearer, whereby the bending of the leg opens said valve.

17. A device of the character described, comprising a shoe, a suction-chamber carried by the shoe, and a valve for relieving said suction.
105 prising a shoe, a suction-chamber carried by the shoe, and a valve for relieving said suction.

18. A device of the character described, comprising a shoe, a suction-chamber carried thereby, a valve in communication with said suction-chamber, and means for operating the valve.
110 prising a shoe, a suction-chamber carried thereby, a valve in communication with said suction-chamber, and means for operating the valve.

19. A device of the character described, comprising a shoe, a suction-chamber secured to the shoe, a valve in communication with said suction-chamber and means for opening and closing said valve.
115 prising a shoe, a suction-chamber secured to the shoe, a valve in communication with said suction-chamber and means for opening and closing said valve.

20. A device of the character described, comprising a shoe, a suction-chamber carried by the shoe, a valve in communication with said suction-chamber, and means operated by the
5 leg for opening said valve.

21. A device of the character described, comprising a shoe, a suction-chamber carried thereby, a valve in communication with said suction-chamber, means operated by the leg for

opening said valve and means for automatic- 10
ally closing said valve.

In testimony whereof I affix my signature in
presence of two witnesses.

VICTOR WAID.

Witnesses:

LUTHER WAID,
O. J. SMITH.