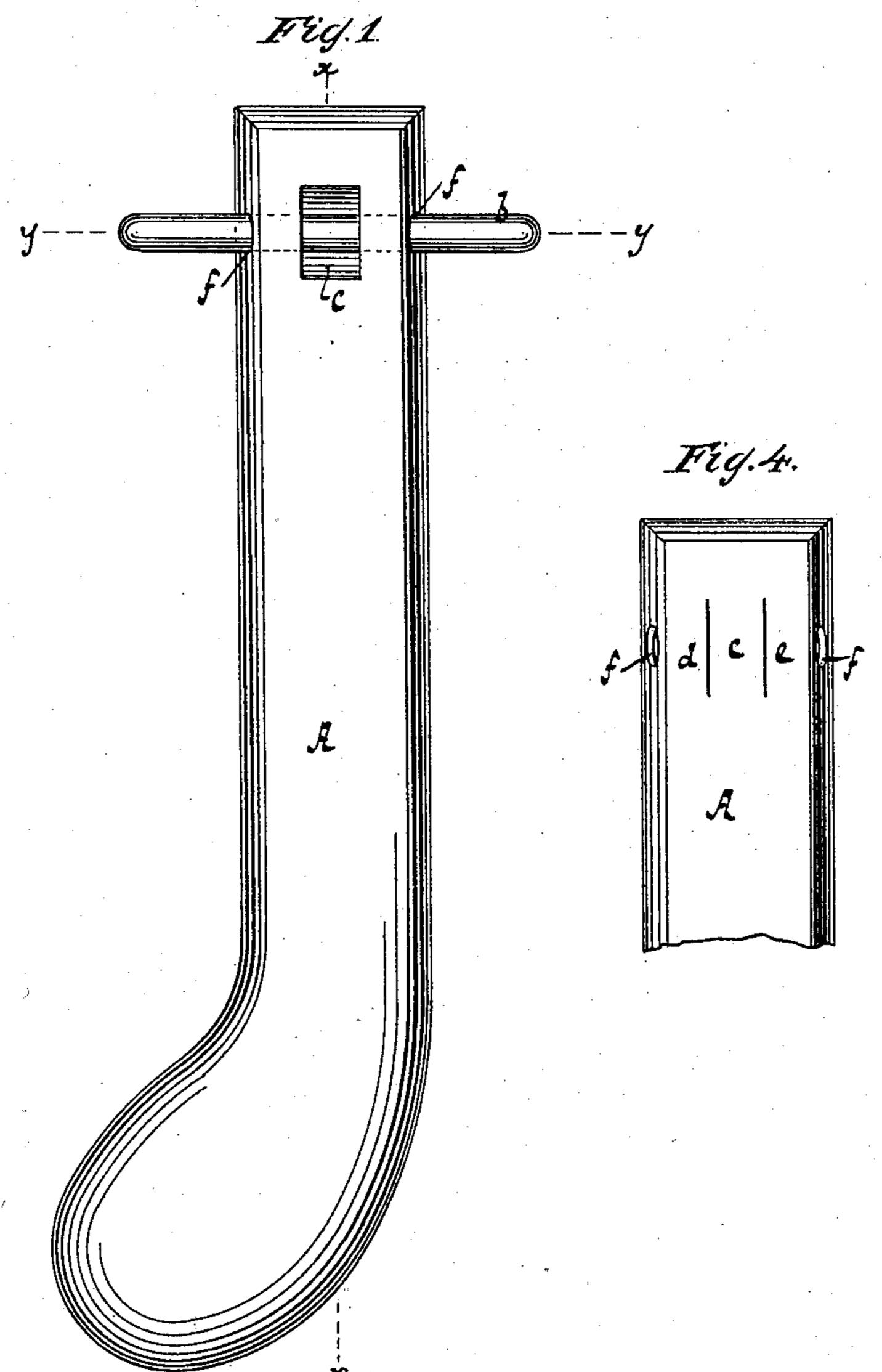
(No Model.)

## L, HAAS.

## PEDAL FOR MUSICAL INSTRUMENTS.

No. 468,656.

Patented Feb. 9, 1892.



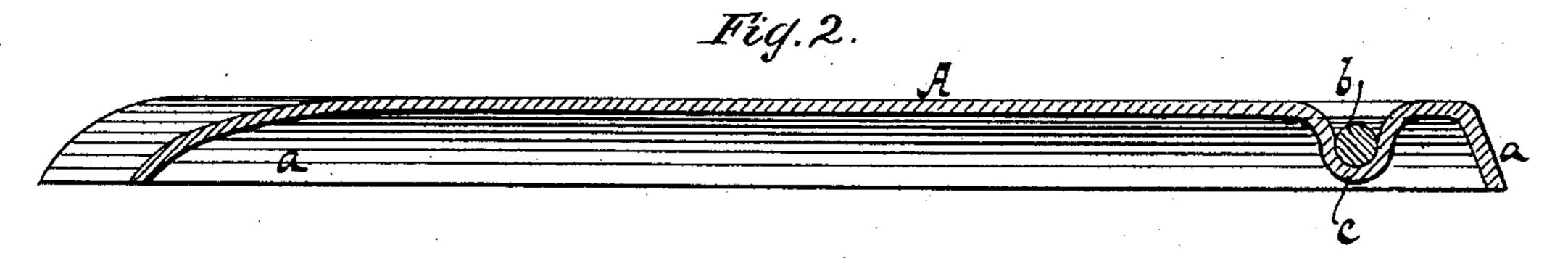


Fig. 3.

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WITNESSES:

Edward Wolff

INVENTOR:

Louis Haas.

Van Santwoord & Hauffy
ATTORNEYS

## United States Patent Office.

LOUIS HAAS, OF NEW YORK, N. Y.

## PEDAL FOR MUSICAL INSTRUMENTS.

SPECIFICATION forming part of Letters Patent No. 468,656, dated February 9, 1892.

Application filed April 20, 1891. Serial No. 389,620. (No model.)

To all whom it may concern:

Be it known that I, Louis Haas, a citizen of the United States, residing at New York, in the county and State of New York, have invented new and useful Improvements in Pedals for Musical Instruments, of which the following is a specification.

This invention relates to a pedal fcr musical instruments, which is stamped up of sheet metal and provided with a rim extending all around to form the bearings for the fulcrum-pin of the pedal. Additional bearings are provided by means of ears made integral with the body of the pedal.

My invention is illustrated in the accom-

panying drawings, in which-

Figure 1 represents a plan or top view of the pedal when completed. Fig. 2 is a longitudinal vertical section in the plane xx, Fig. 201. Fig. 3 is a transverse vertical section in the plane yy, Fig. 1. Fig. 4 is a partial top view of the pedal before the same is completed.

In the drawings, the letter A designates a pedal for musical instruments, which is stamped up of sheet metal and provided with a continuous rim a on its under surface. By this rim sufficient strength is imparted to the pedal so that the same is not liable to bend or break by the pressure of the foot to which it may be exposed. The rim a is provided with holes f, which form the bearings for the

with holes f, which form the bearings for the fulcrum-pin b, on which the pedal swings, and in order to retain this pin firmly in position a trough c is formed by depressing a por-

tion of the face-plate of the pedal. For this 35 purpose the slits de are made into the face-plate, as shown in Fig. 4, and then the part c between these cuts is depressed, as shown in Fig. 2, to such a depth as to admit the fulcrum-pin b, and then this trough is compressed from beneath, so that the pin b is firmly clamped in the holes f.

Pedals made according to my invention are much lighter than but equal in strength to the ordinary cast-metal pedals, and they can 45 be highly finished with comparatively little

labor.

What I claim as new, and desire to secure

by Letters Patent, is—

1. A pedal for musical instruments, struck 50 up from sheet metal, with a continuous pendent rim a, having orifices f, through which passes the pedal-pivot-pin b, substantially as described.

2. A pedal for musical instruments, struck 55 up from sheet metal, with a continuous pendent rim a, and having its face-plate provided with slits to form an intermediate portion, which is depressed from the face-plate and clamped against the pedal pivot-pin, substan- 60 tially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing

witnesses.

LOUIS HAAS.

Witnesses:

WM. C. HAUFF, E. F. KASTENHUBER.