2 Sheets-Sheet 1.

(No Model.)

C. ZENDER. PEDAL STOOL.

No. 502,944.

Patented Aug. 8, 1893.

Fig.1.



Inventor: bender Hender,

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By G. Dittman.

Witnesses: Jobuflugi F Dittman

(No Model.)

2 Sheets-Sheet 2.

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UNITED STATES PATENT OFFICE.

CENDER ZENDER, OF BERLIN, GERMANY.

PEDAL-STOOL.

SPECIFICATION forming part of Letters Patent No. 502,944, dated August 8, 1893.

Application filed March 18, 1893. Serial No. 466,647. (No model.)

To all whom it may concern:

Be it known that I, CENDER ZENDER, a subject of the Emperor of Germany, residing at Berlin, Prussia, Germany, have invented cer-

tain new and useful Improvements in Pedal Foot-Stools, of which the following is a specification.

This invention relates to certain improvements in adjustable pedal attachments for

- 13 pianos, organs, &c., and has for its object the provision of a device of this character whereby such pedals may be more conveniently operated especially by persons of small stature and children, all as will be hereinafter fully 15 described.
 - The novel features of my invention will be carefully defined in the claims.

In the accompanying drawings illustrating my invention Figure 1 is a front elevation of

- 20 the device and Fig. 2 is a plan of the same. Fig. 3 is a vertical cross section on line a-bin Fig. 1, and Fig. 4 is an end elevation of the device. Fig. 5 is a fragmentary detail of a modification to be referred to hereinafter.
- In the views C, C, represent feet formed on 25 standards B, B, and connected by a cross piece or round C^{*}. Mounted on each standard B, is a guide plate B^{\times} having flanges c, c, at its opposite edges in which plays a verti-
- 30 cal support B', attached at its upper end under the foot rest A. Thus it will be seen that the foot rest is upheld on the supports B', B' on each side and in order to adjust the same to the required height, I provide each of said
- 35 supports B' with a series of rack teeth b with which engage dogs s' pivoted at s^{\times} to the guide plate B[×] as seen in Fig. 4. The guide plate is provided with an extension having an upturned flange c^{\times} whereon is mounted a 40 leaf spring c' bearing on dog s'. Thus it will
- be seen that by withdrawing said dog from engagement with teeth b the foot rest may be raised or lowered to any desired height.

Hinged at the upper inner edge of the foot 45 rest A are two auxiliary pedals E, E, coupled to racks or rack bars G' the lower end of each of which is inclosed in a tubular connecting rod G, slidingly mounted in the cross piece \mathbf{C}^{\times} and bearing at its lower end on one of the

50 pedals P. A spring f is secured at its upper end to said rod G, and bears at its lower end I dogs on said standards engaging said racks,

against the cross piece C^{\times} whereby said rod is retracted when pushed down and in its upper end said rod G is provided with an opening through which projects a dog s adapted 55 to engage the rack teeth of the bar G' as clearly seen in Fig. 3. Thus it will be seen that the length of said connecting rod may be varied as desired and in order to simultaneously disengage the dogs from racks b, b, 60 G', G', I have connected the respective dogs s, s', with one arm of a rock shaft i, pivoted to the standards B, and having an operating arm h.

In the modified form seen in Fig. 5, a rock 65 shaft i is pivoted to the standards and has a weighted arm h and curved arms i^{\times} which are connected to pawls or dogs s^{\times} pivoted to the standards and engaging the rack teeth b. The operation of this device is substantially 70 the same as that before described.

I do not wish to be understood as limiting myself to the precise construction and arrangement of the device as herein set forth, since it is obvious that considerable departure 75 may be made therefrom without material change in the principle of my invention.

Having thus described my invention, I claim-

1. The combination with the standards, of 80 the foot rest vertically adjustable thereon, the auxiliary pedals pivoted to said foot rest, the longitudinally adjustable coupling rods connected at their upper ends to said auxiliary pedals and with their lower ends in po- 85 sition to engage the pedals of an instrument, and means for retracting said rods, substantially as set forth.

2. The combination with the standards, of the foot rest provided with vertical racks, 90 dogs on said standards engaging said racks, vertically movable connecting rods, each composed of a rack bar and a tubular portion embracing said rack bar, said tubular portion being provided with a dog engaging the teeth 95 of said rack bar and having its lower end in position to engage one of the pedals and retracting springs for said connecting rods, substantially as set forth.

3. The combination with the standards, of 100 the foot rest, provided with vertical racks,

the auxiliary pedals pivoted to said foot rest, vertically movable connecting rods each having its upper end connected with one of said auxiliary pedals and its lower end in position 5 to engage the pedal of an instrument, said

connecting rods being each composed of a rack bar and a tubular portion embracing said rack bar said tubular portion being provided with a dog engaging the teeth of the rack bar and retracting springs for said rods,

substantially as set forth.

4. The combination with the standards, each provided with a guide plate having upturned vertical racks engaging said guide

15 plates, dogs on said standards engaging said racks, vertically movable connecting rods each having its lower end in position to engage one of the pedals of an instrument, said connecting rods being composed of a rack

20 bar and a tubular lower portion embracing and provided with a dog engaging said rack bar and retracting springs for said connecting rods, substantially as set forth. 5. The combination with the standards, of the foot rest provided with vertical racks, 25 dogs on said standards engaging said racks, vertically movable connecting rods each composed of a rack bar and a tubular portion embracing and provided with a dog engaging said rack bar, said connecting rods having 30 their lower ends in position to engage the pedals of an instrument, a rock shaft provided with an operating arm and with arms to which said dogs on the standards and connecting rods are connected and retracting 35 springs for said connecting rods, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 28th day of Feb- 40 ruary, 1893.

CENDER ZENDER.

Witnesses: TH. LORENS, W. HAUPT.