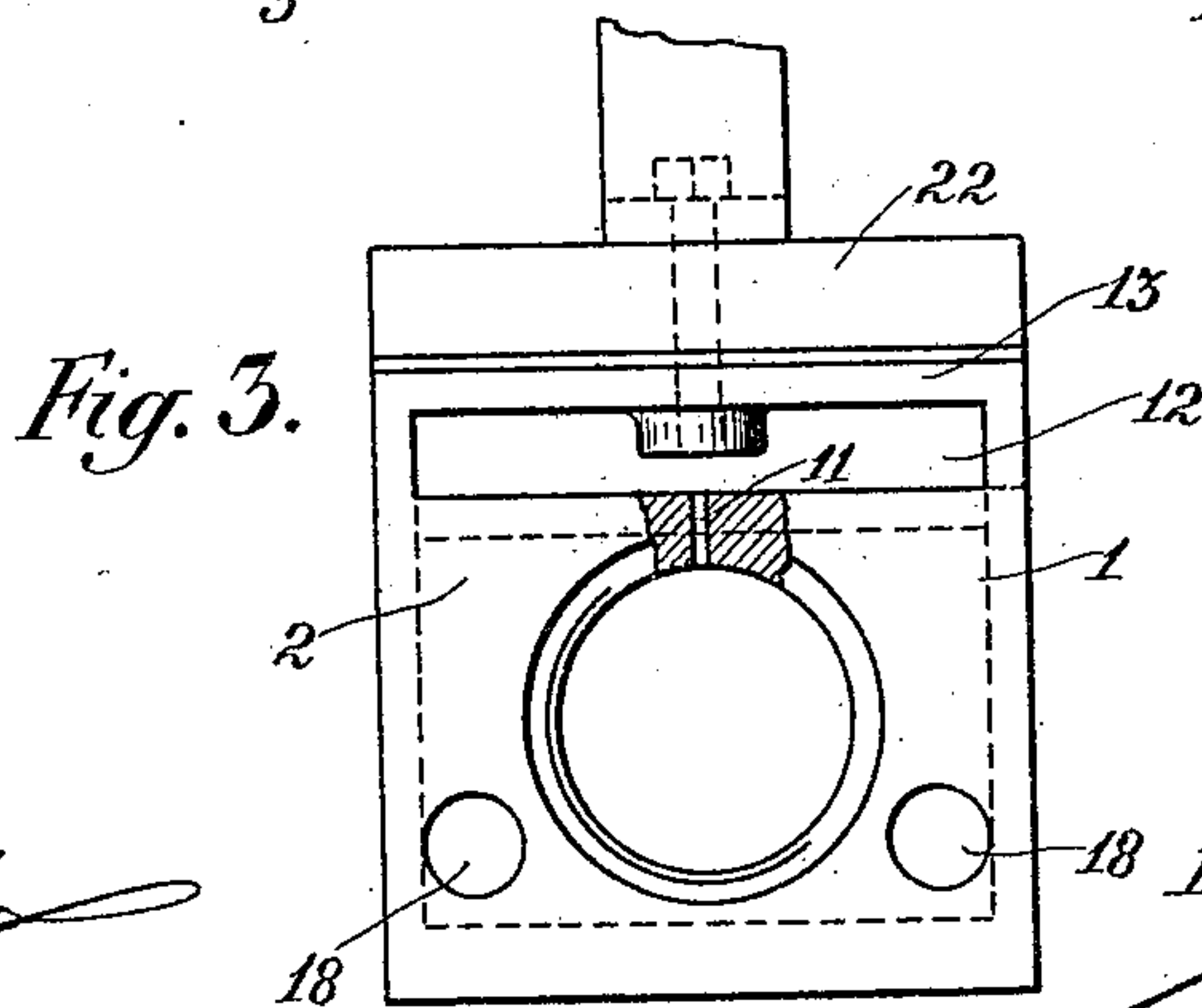
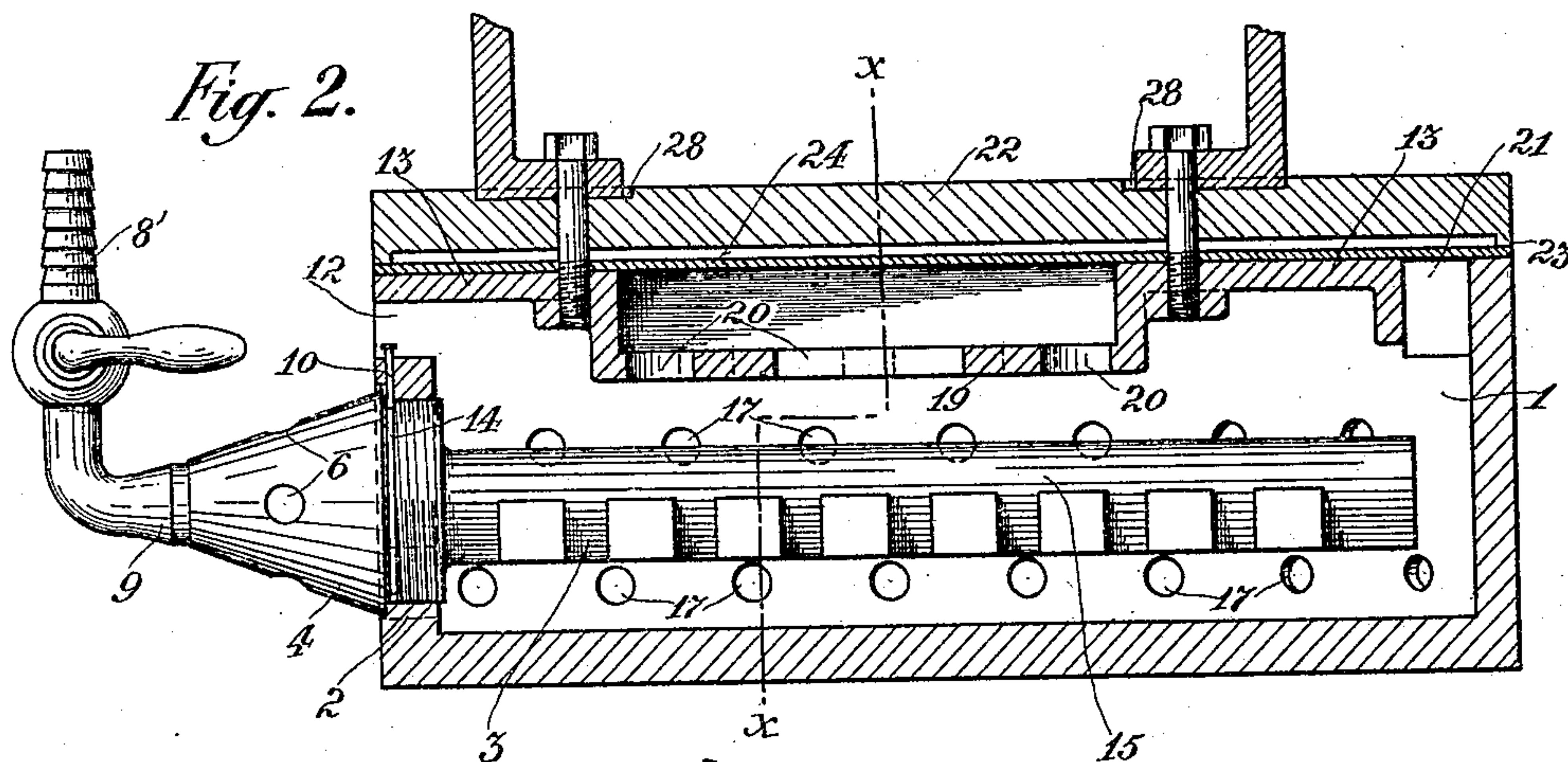
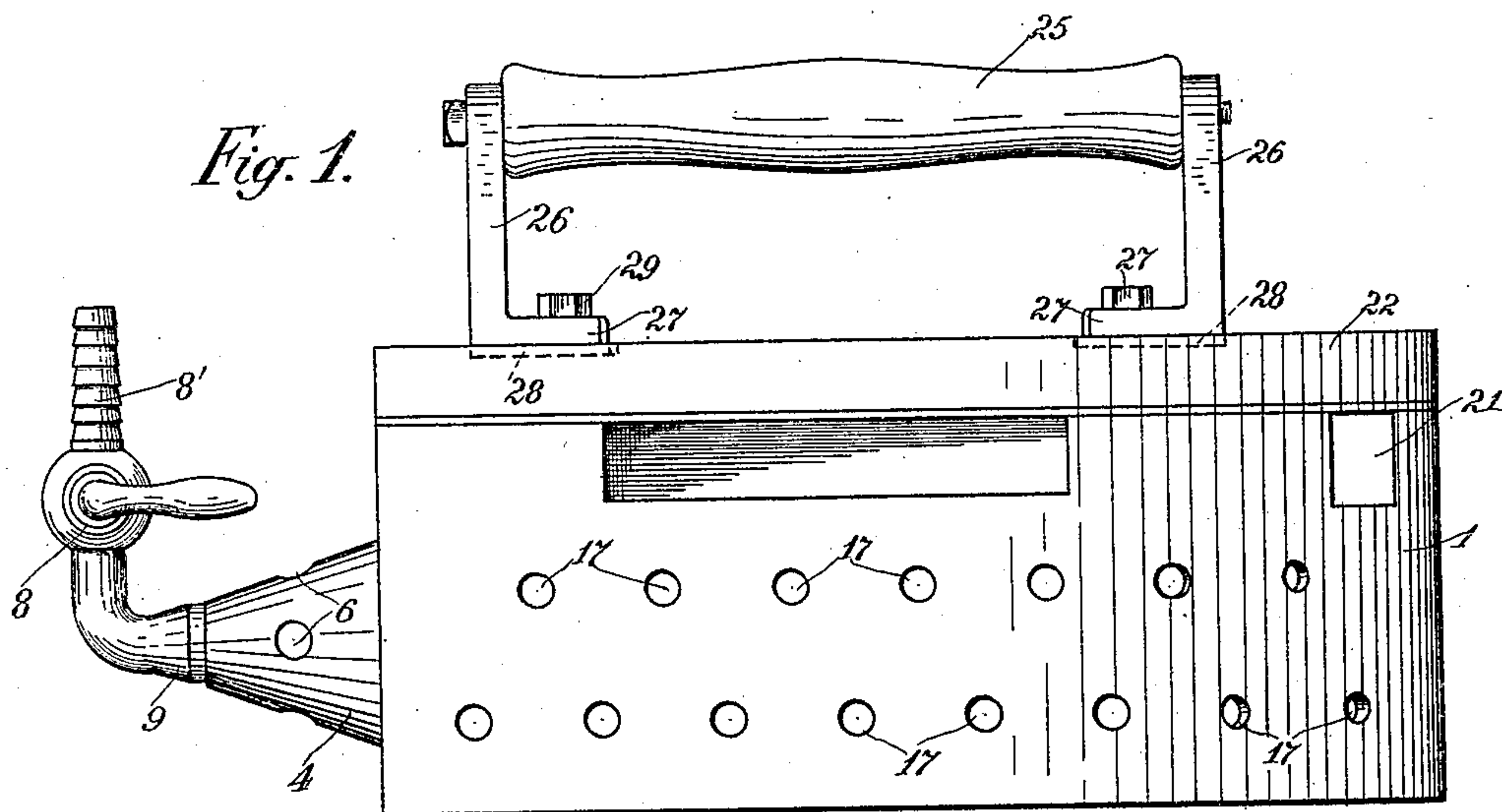


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SAD IRON.
APPLICATION FILED DEC. 11, 1908.

938,762.

Patented Nov. 2, 1909.
2 SHEETS—SHEET 1.



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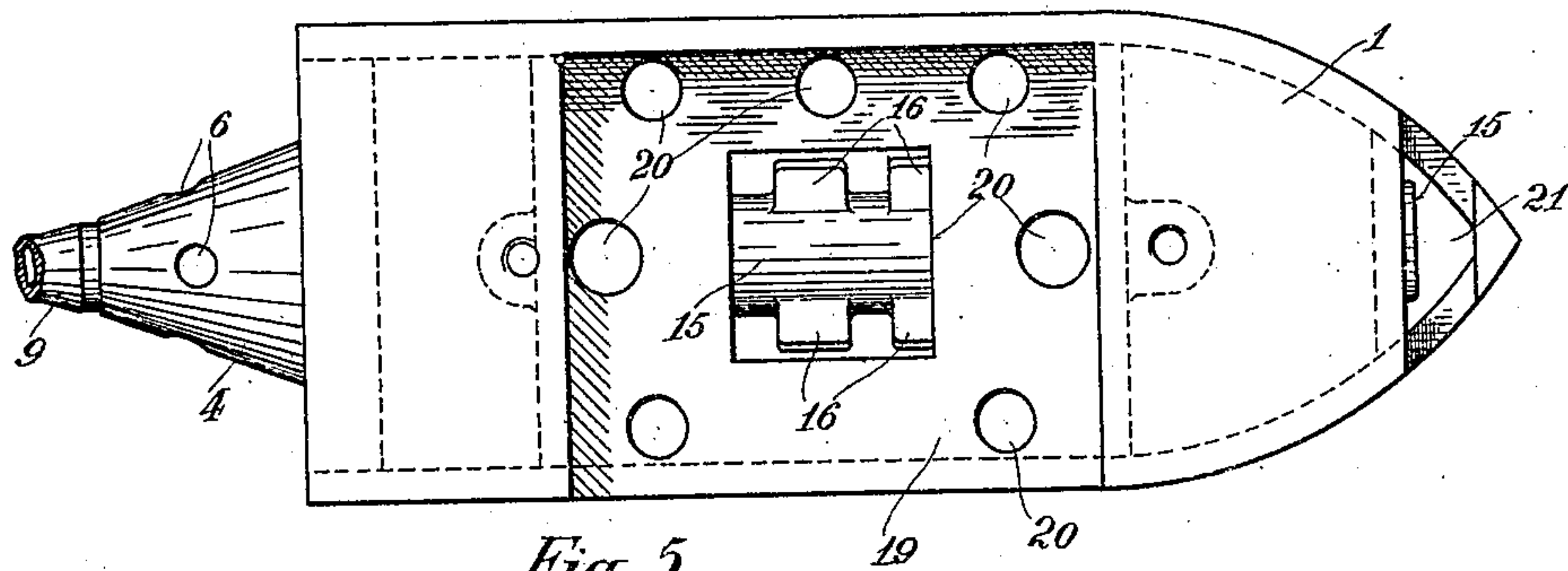


Fig. 5.

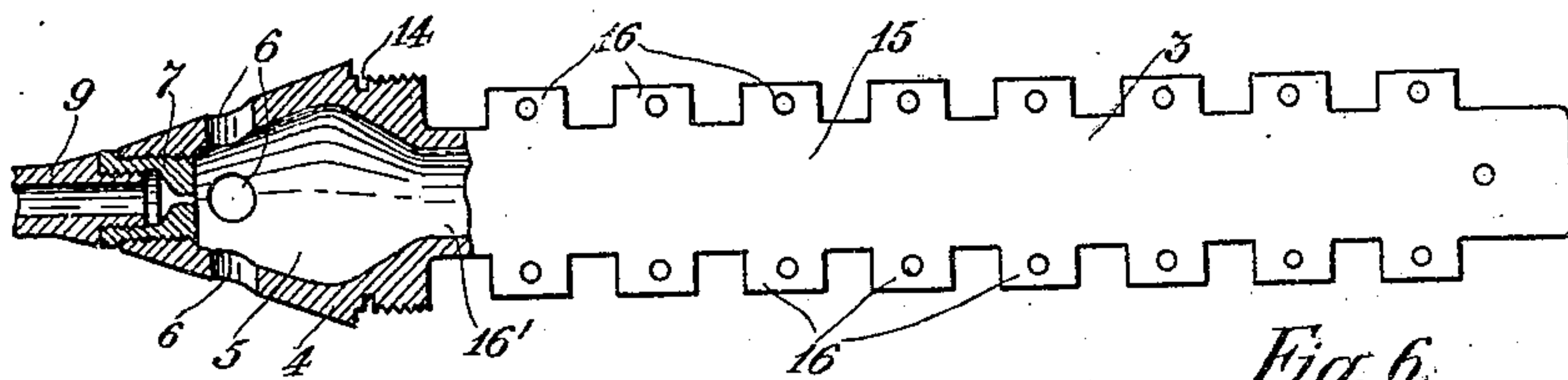


Fig. 6.

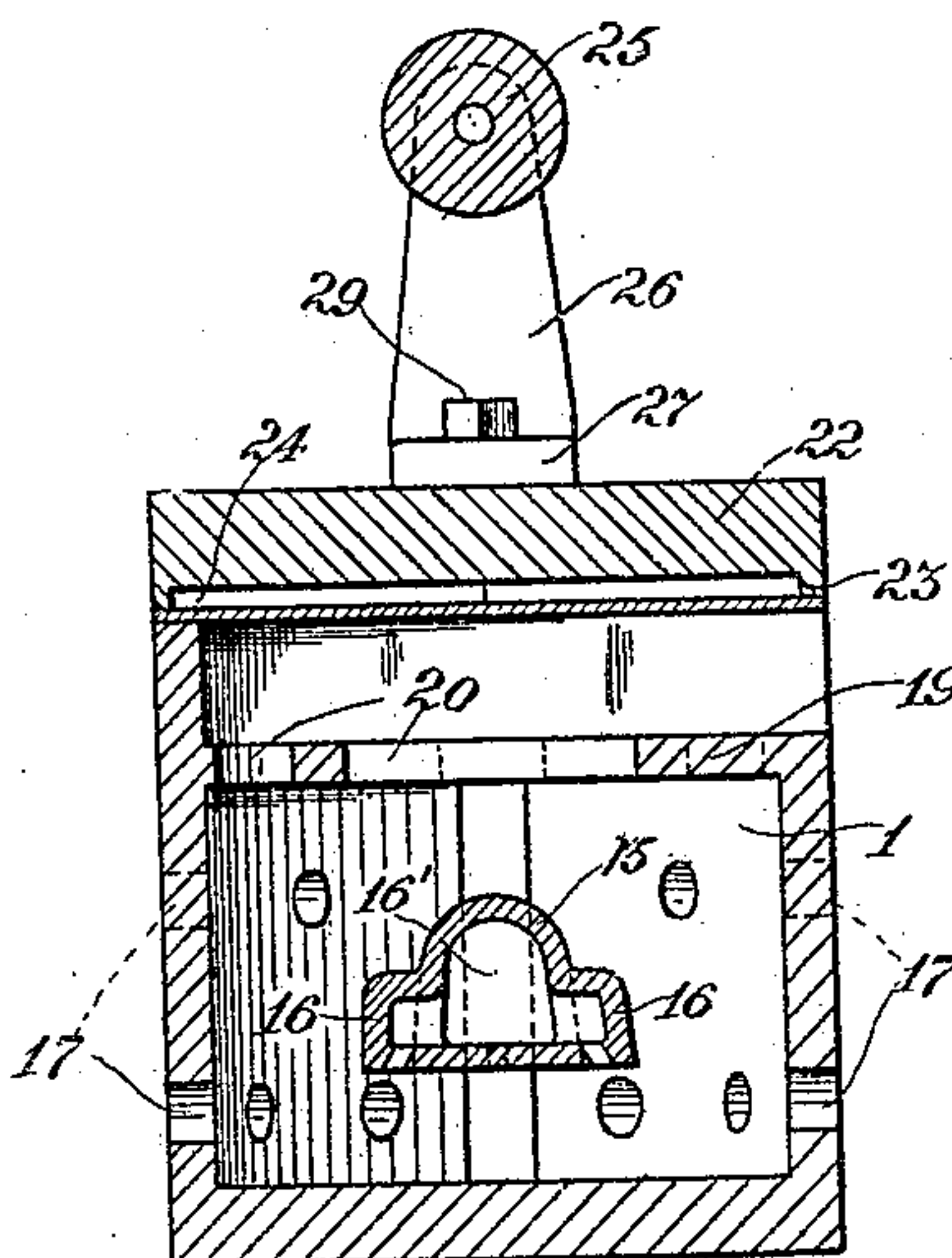


Fig. 4.

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UNITED STATES PATENT OFFICE.

MICHAEL J. HABER, OF CHICAGO, ILLINOIS.

SAD-IRON.

938,762.

Specification of Letters Patent.

Patented Nov. 2, 1909.

Application filed December 11, 1908. Serial No. 467,103.

To all whom it may concern:

Be it known that I, MICHAEL J. HABER, a citizen of the United States, residing at Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Sad-Irons, of which the following is a specification.

My invention relates to sad irons, and more specifically to that class of the same commonly known as self-heating sad irons, in which gas is used as a fuel for maintaining irons at a constant temperature while in use.

The object of my invention is to provide a device of the character mentioned which shall be of such improved construction as to adapt the same to be of the highest possible efficiency.

A further object of my invention is to provide an iron of the class stated, in which the burner thereof may be readily and easily removed or replaced, and further it is my object to provide an iron which shall be comparatively simple of construction, hence of low cost to manufacture.

Other objects will appear hereinafter.

With these objects in view my invention consists generally in a sad iron characterized as above mentioned and in certain details of construction and arrangement of parts all as will be hereinafter fully described and particularly pointed out in the claims.

My invention will be more readily understood by reference to the accompanying drawings forming a part of this specification, and in which—

Figure 1 is a side elevation of my device in its preferred form. Fig. 2 is a vertical longitudinal section thereof. Fig. 3 is an end elevation thereof, the burner being removed. Fig. 4 is a vertical transverse section taken on the line $x-x$ of Fig. 2. Fig. 5 is a top plan view of the iron, the top plate and handle thereof being detached, and Fig. 6 is a bottom plan view of the burner, a portion thereof being shown in section.

Referring now to the drawings 1 indicates the sad iron shell or sad iron proper, the same being preferably formed of cast metal, in the rear end wall 2 of which is loosely threaded a centrally and horizontally disposed fuel gas burner 3, the same extending longitudinally in said iron substantially the entire length thereof. The end portion 4 of said burner 3 is as shown enlarged and pref-

erably conically formed, the chamber 5 formed by said portion constituting a gas mixing chamber for the burner. Provided in said chamber forming portion 4 are draft openings 6. Secured, preferably threaded, in the rearward end portion of said chamber forming portion 4 of the burner 3 is a suitable nozzle 7. Secured, preferably threaded, in the rearward end portion of said nozzle is a suitable gas cock 8, to the circumferentially grooved end portion 8' of which a gas supply hose is adapted to be connected. It should be noted, however, that the gas cock 8 is of increased thickness at its forward end portion 9, the same being so constructed to reinforce the same at that point, it being a known fact that at this point sad iron gas cocks of a similar construction, in general use at the present time, are constantly being broken.

As before stated, the burner 3 is loosely threaded in the end wall 2 of the sad iron shell 1, such provision being made to facilitate readily removing the same for cleaning or otherwise repairing the same. In order to securely lock said burner in position, however, I provide a vertically disposed pin 10 loosely mounted in a slot 11 provided in the upper edge portion of the wall 2 for the reception of the same, a transversely extending elongate opening 12 being provided between the upper edge of said wall and the under surface of the top wall 13 of said shell, for a purpose hereinafter stated. The lower end portion of said pin is adapted to rest in a circumferential groove 14 provided in the burner 3 for the reception of the same. When said burner is in correct position in the sad iron shell, said pin will, because of gravity, drop into engagement with said groove, thereby acting as a locking means for said burner. Upon wishing to remove the burner, the shell needs only to be inverted, in which event the lock-pin will, because of gravity, drop out of engagement with said groove, thereby permitting of the unscrewing, and hence the detachment of said burner.

The burner tube 15 of the burner 3 is preferably substantially semi-cylindrical in form, the same being formed at intervals with laterally projecting downwardly opening nipples 16 communicating with the expansion chamber 16' thereof. By such construction the gaseous products of combus-

tion may pass between said nipples, hence impedance of such gases in their escapement from the shell is reduced to a minimum.

The side or vertically disposed walls of the shell 1 are provided with a plurality, preferably two rows thereof, of draft openings 17, and the rear wall 2 of said shell is provided close to the lower edge thereof with openings 18, through which openings air is adapted to pass in the support of the combustion of the fuel gas provided within said shell. The top wall 13 of the shell 1 is formed with a laterally opening, preferably rectangular depression 19, in which depressed portion thereof are provided openings 20, the same being provided together with the opening 12 and an opening 21 formed in the forward end portion of said shell, to facilitate the ready escapement of the gaseous products of combustion. By such construction, that is, by the provision of the intake openings 17 and 18 and the draft openings 12, 20 and 21, a constant air circulation is facilitated.

In order, principally to increase the weight of the iron, so as to enhance the practical usefulness of the same, I provide a superimposed heavy metal plate 22 of a contour the same as that of the shell 1. Said plate is provided with a peripheral depending flange 23, between the lower edge of which and the upper surface of the shell is interposed a layer of asbestos. By the provision of said flange an air space 24 is formed between said plate 22 and said asbestos, which, together with the latter forms a most highly efficient heat insulator.

25 indicates a suitable handle, mounted between standards 26, the base portions 27 of which preferably rest in seats 28 provided in the upper surface of the plate 22 for the reception of the same. Screws 29 extending through said standard base portions 27 and said plate 22, the same being threaded in the top wall 13 of the shell 31, serve as a securing means for said standards and said plate to the shell 1.

Having described my invention what I claim as new and desire to secure by Letters Patent is:

1. A sad iron of the class described, consisting of a shell provided with openings in the side and rear walls thereof, the central portion of the top wall thereof being provided with a laterally opening apertured depression, a burner longitudinally extending within said shell, the same being threaded into the rear end wall thereof, a lock-pin mounted in said rear end wall of said shell adapted to enter a groove provided in said burner when the latter is in correct position in said shell, and a superimposed plate, the same being provided with a depending peripheral flange adapted to rest upon the up-

per surface of said shell, substantially as described.

2. A sad iron of the class described, consisting of a shell provided with openings in the side and rear walls thereof, the central portion of the top wall thereof being provided with a laterally opening apertured depression, a burner longitudinally extending within said shell, the same being threaded in the rear end wall thereof, said burner consisting of an expansion chamber forming a forward end portion, laterally projecting downwardly opening nipples communicating with said chamber, and an enlarged apertured mixing chamber forming a rearward end portion, and a superimposed plate, the same being provided with a depending flange adapted to rest upon the upper surface of said shell, substantially as described.

3. A sad iron of the class described, consisting of a shell provided with openings in the side and rear walls thereof, the central portion of the top wall thereof being provided with a rectangular laterally opening apertured depression, a gas burner longitudinally extending within said shell, the same being threaded into the rear end wall thereof, a vertically disposed lock-pin slidably mounted in the said rear end wall of said shell, the lower end portion of said pin being adapted to engage a circumferential groove formed in the rearward end portion of said burner, a superimposed plate, a peripheral flange depending therefrom adapted to rest upon the upper surface of said shell, substantially as described.

4. A sad iron of the class described, consisting of a shell provided with openings in the side and rear wall thereof, the top wall thereof being provided with a laterally opening apertured depression, a gas burner longitudinally extending within said shell, the same being threaded into the rear end wall thereof, means slidably mounted in said wall for locking said burner against relative movement, said burner consisting of a substantially semi-cylindrical expansion chamber forming a forward end portion, laterally projecting downwardly opening nipples communicating with said chamber, and an enlarged conically formed mixing chamber forming a rearward end portion, and a dependingly flanged superimposed plate, the end of said flange being adapted to rest upon the upper surface of said shell, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MICHAEL J. HABER.

Witnesses:

HELEN F. LILLIS,
JANET E. HOGAN.