

C. FISH & C. WIGHTMAN.
STOVE GRATE.

APPLICATION FILED JUNE 15, 1909

956,064.

Patented Apr. 26, 1910.

Fig. 1.

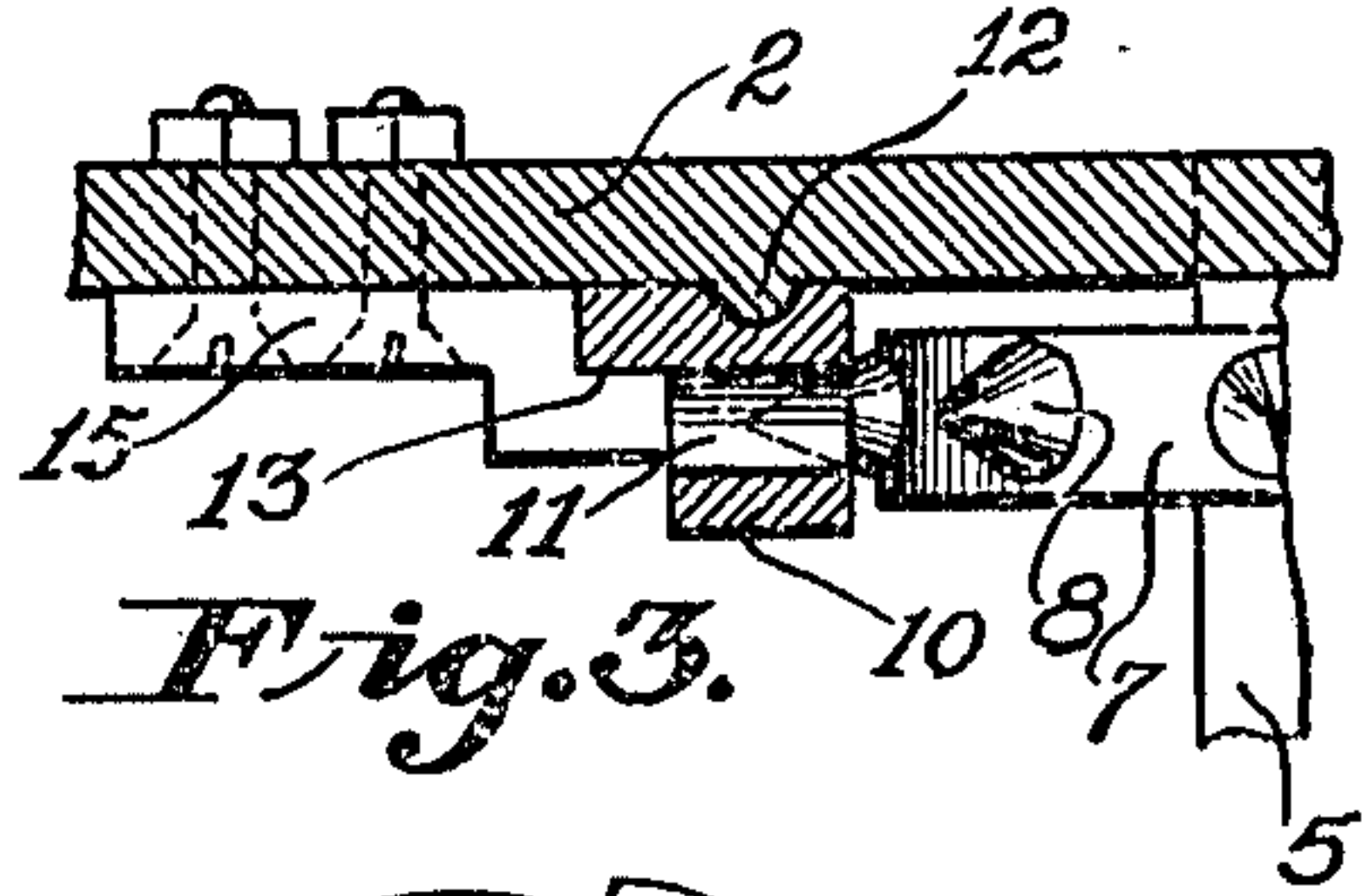
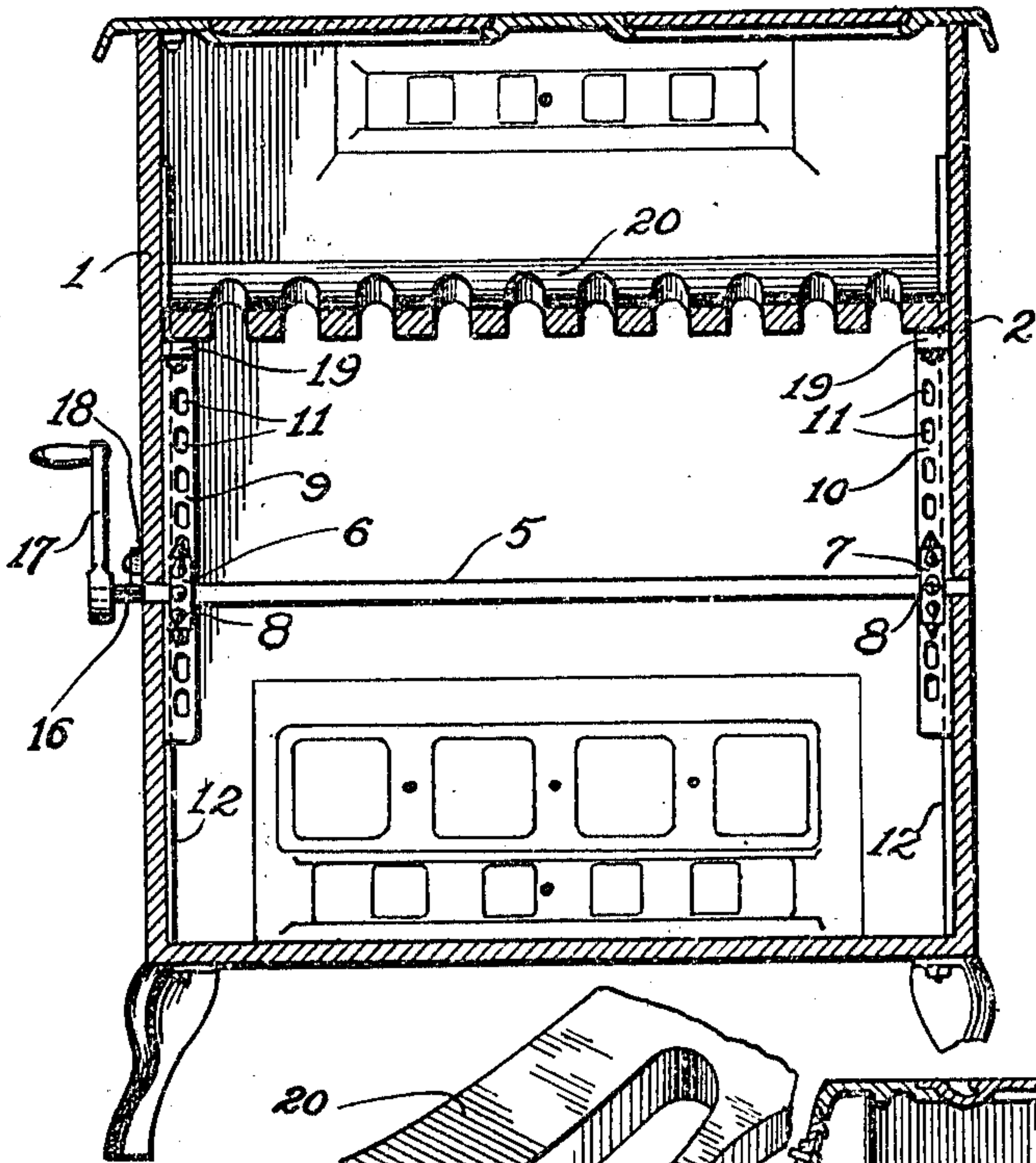


Fig. 3.

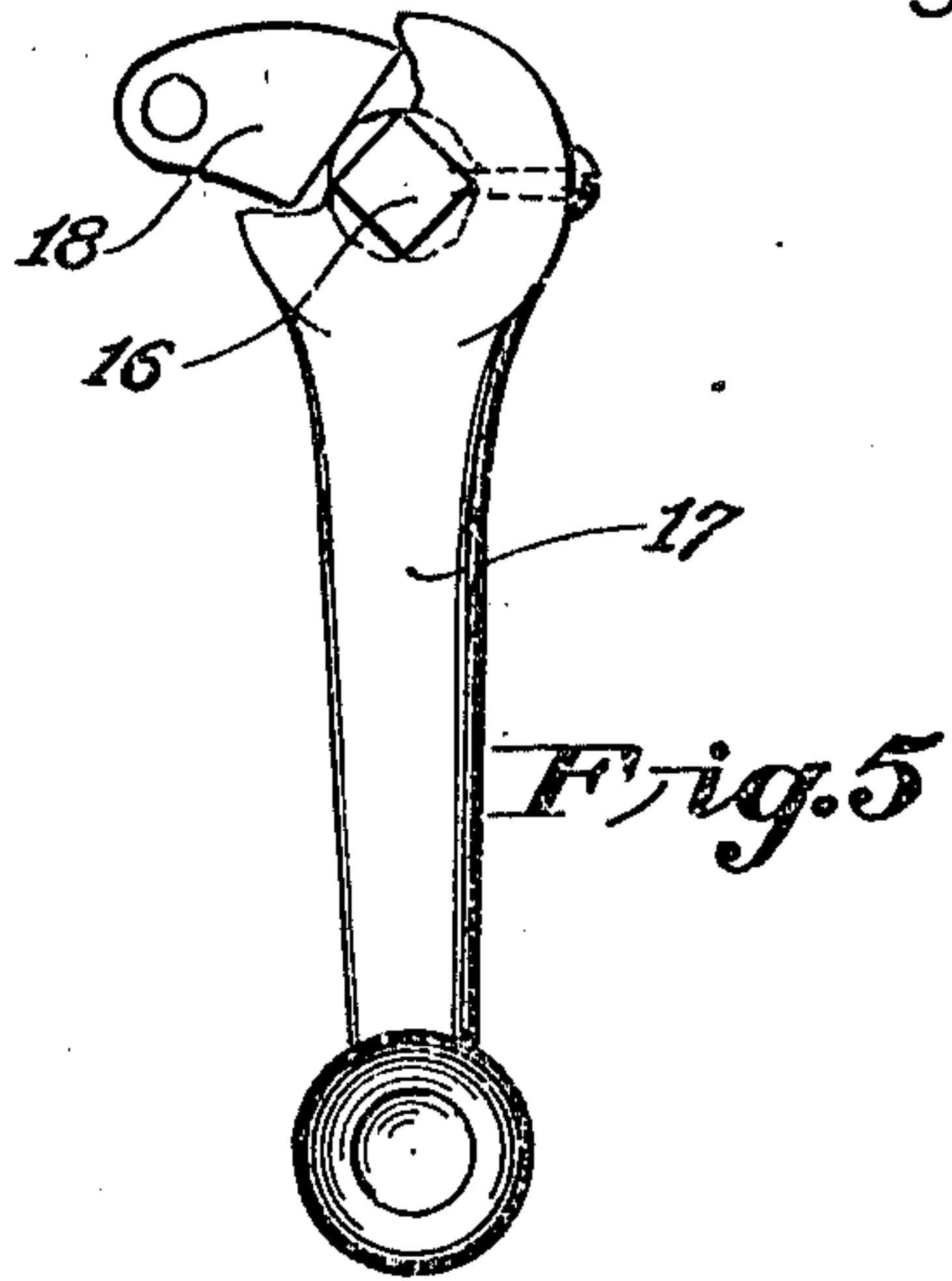


Fig. 5.

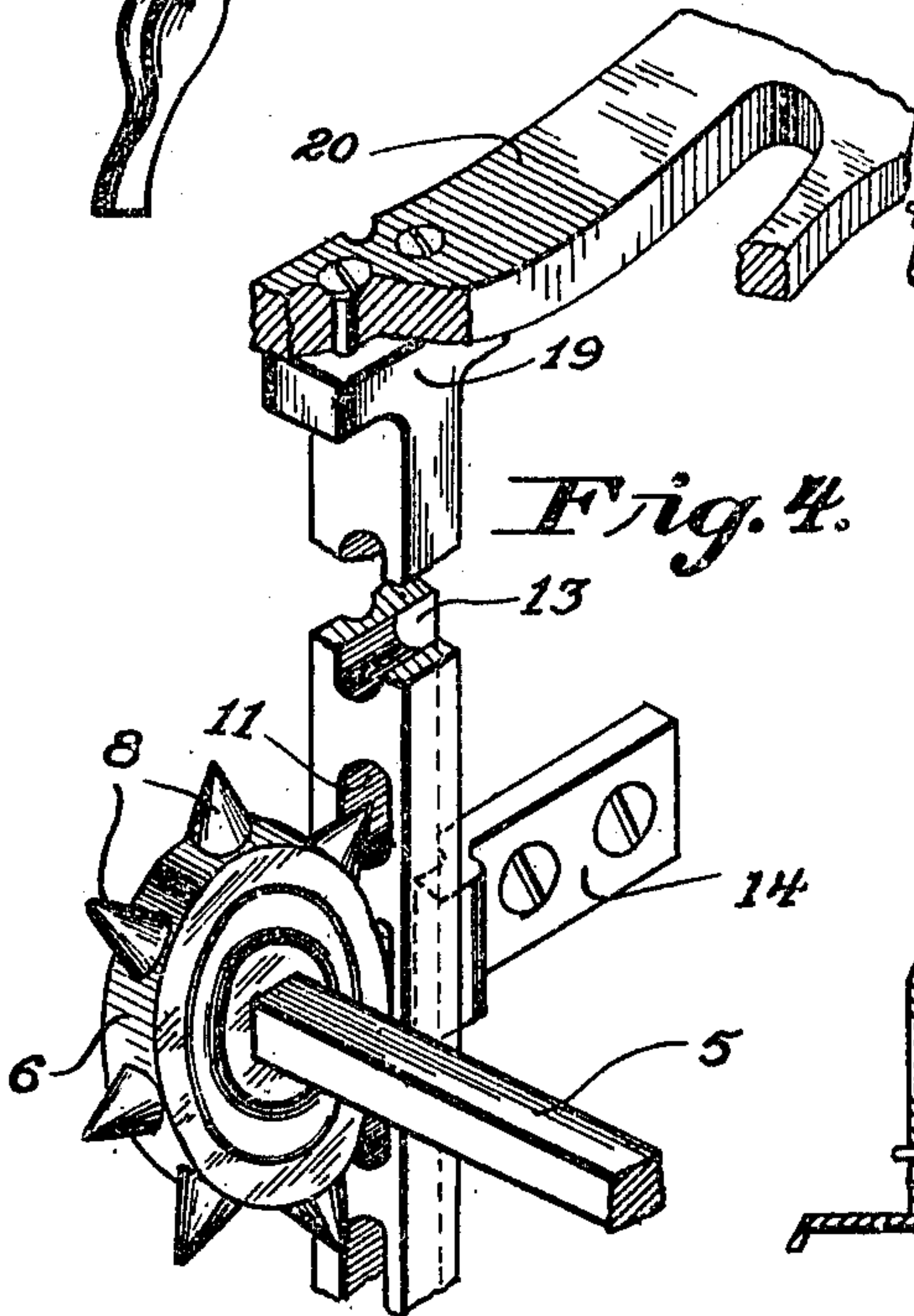


Fig. 4.

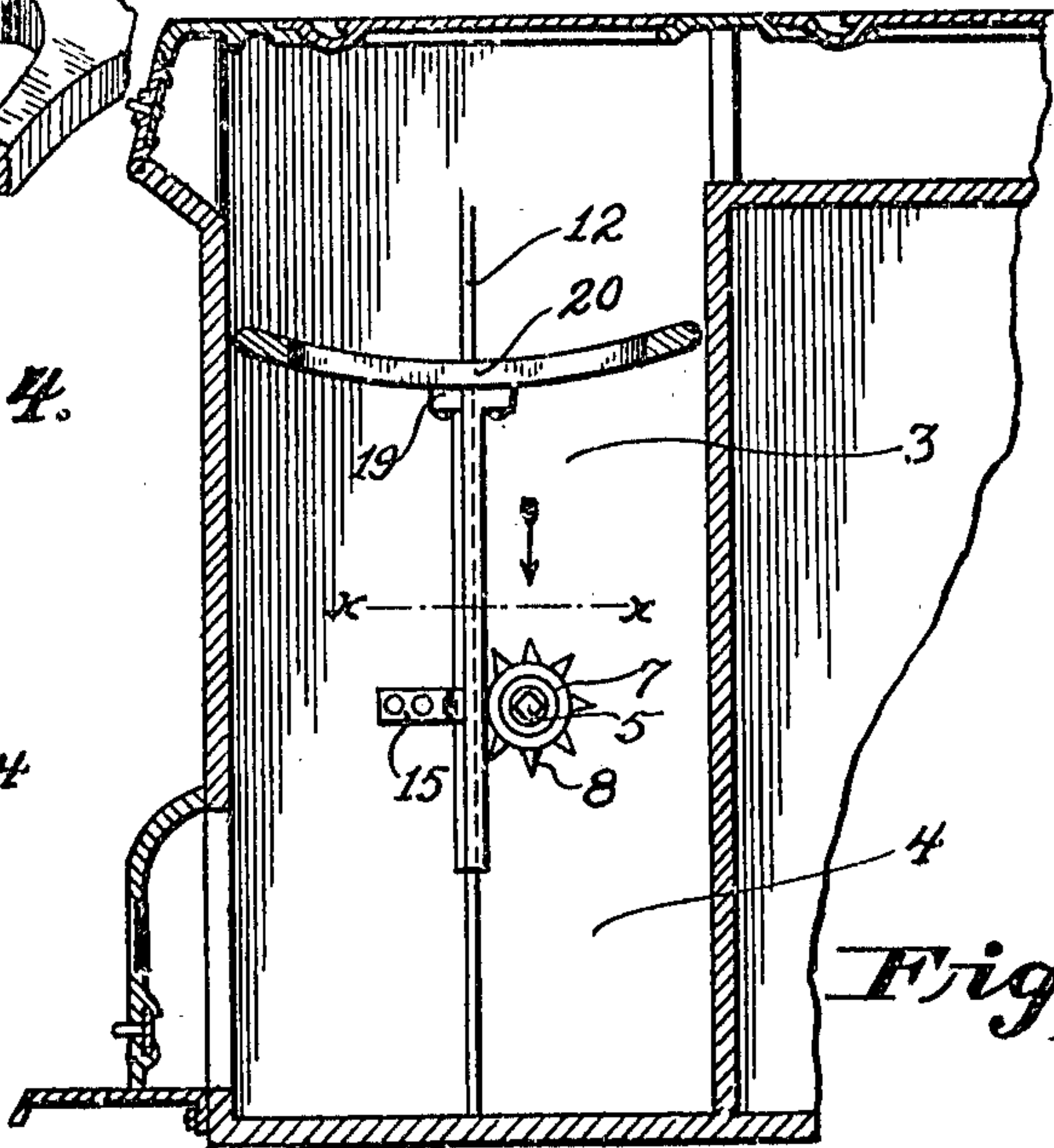


Fig. 2.

Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES FISH AND CHARLES WIGHTMAN, OF LITTLE ROCK, ARKANSAS.

STOVE-GRATE.

956,064.

Specification of Letters Patent.

Patented Apr. 26, 1910.

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To all whom it may concern:

Be it known that we, CHARLES FISH and CHARLES WIGHTMAN, citizens of the United States, residing at Little Rock, in the county of Pulaski and State of Arkansas, have invented certain new and useful Improvements in Stove-Grates, of which the following is a specification, reference being had therein to the accompanying drawing.

Our invention relates to improvements in adjustable grates for stoves, furnaces and the like, and has for its object to provide a grate, which can be readily adjusted to raise or lower the fire. Further, the invention, as is readily apparent, is particularly applicable to cooking stoves or ranges in which it is desirable at times to have only a "low" fire, and, under these conditions, when it is desired to cook food on top of the stove or expose it directly to the coals, all that it is necessary to do is to raise the grate to bring the top of the fire to the desired position.

Other objects and advantages of our invention will appear in the course of the following specification.

In the accompanying drawings: Figure 1 is a longitudinal sectional view through the fire box and ash pit end of a stove fitted with our improved grate. Fig. 2 is a cross sectional view through the fire box and ash pit end of the stove. Fig. 3 is a sectional view on the line $x-x$, Fig. 2, looking in the direction of the arrow. Fig. 4 is a fragmentary, perspective view of the grate and means employed to adjust it. Fig. 5 is a front elevation of another portion of the means employed to adjust the grate and the means to lock it in adjusted positions.

Referring to the drawings, which represent the preferred embodiment of our invention, 1 and 2 respectively designate the sides of the stove. Journaled in the sides 1 and 2, centrally of the fire-box 3 and ash-pit 4 but preferably nearer the bottom than the top of the stove, is a shaft 5, which is preferably square in cross section between its bearings. Fixed on the shaft 5 close to the inner faces of the sides 1 and 2 are two pinions 6 and 7, which are provided with conical teeth 8 for a purpose to be hereinafter explained. Movable held on the inner face of each of the sides 1 and 2 are vertically slidable standards 9 and 10 which support the grate 20, hereinafter referred to, each of said supports being provided with a series of elongated aper-

tures 11, preferably approximately elliptical in shape. The supports are adapted to slide on vertical guides or bearings 12, and each support is provided with a rabbeted or right-angular cut-out portion 13. The rabbeted portions 13 extend from the bottom nearly the entire length of the supports, and are engaged by lugs 14 and 15 secured respectively to the sides 1 and 2. The lugs are preferably located just opposite the pinions 6 and 7 so that the supports will be firmly held in mesh with them but will be allowed to move freely when the pinions are rotated.

Suitably secured to the squared end 16 of the shaft 5, which extends outside the side 1, is an actuating handle 17. Pivoted contiguous to and slightly above the end 16 of the shaft 5 is a lug 18, which is adapted to be turned to engage the shaft to hold it from rotating after the position of the grate has been adjusted. The tops or upper ends of the supports 9 and 10 are enlarged to form bearings or heads 19 upon which is secured a preferably concave grate 20.

From the foregoing description, taken in connection with the accompanying drawings, it will be apparent that the grate 20 can be raised or lowered, as desired, by turning the handle 17 to the right or left, and when the grate has been adjusted to the desired position, it can be there secured by means of the lug 18. With the pinions 6 and 7, provided with conical teeth 8, and the supports 9 and 10 with apertures 11, it will be evident that ashes, cinders and the like will not collect in the teeth of the pinions nor the apertures of the supports, and, hence, interfere with the proper adjustment of the grate.

What we claim is:—

1. In a stove, a vertically movable grate, vertically movable standards supporting said grate, each of said standards having a vertical column of elongated openings, pinions having conical teeth engaging said openings, and mechanism for simultaneously operating said pinions to raise and lower the grate.

2. A stove having a vertical rib on each of its opposite inner sides, a vertically movable grate, vertically movable standards supporting said grate, each of said standards having a vertical groove engaging one of said ribs, lugs on the side of the stove engaging said standards, each of said standards

having a vertical column of elongated openings, a shaft extending across the stove and mounted thereon, and having a pinion adjacent to each end, each of said pinions having conical teeth meshing freely with said openings, and means for operating and locking said shaft.

In testimony whereof we hereunto affix our signatures in presence of two witnesses.

CHARLES FISH.

CHARLES WIGHTMAN.

Witnesses:

W. C. ADAMSON,

B. D. BRICKHANE.