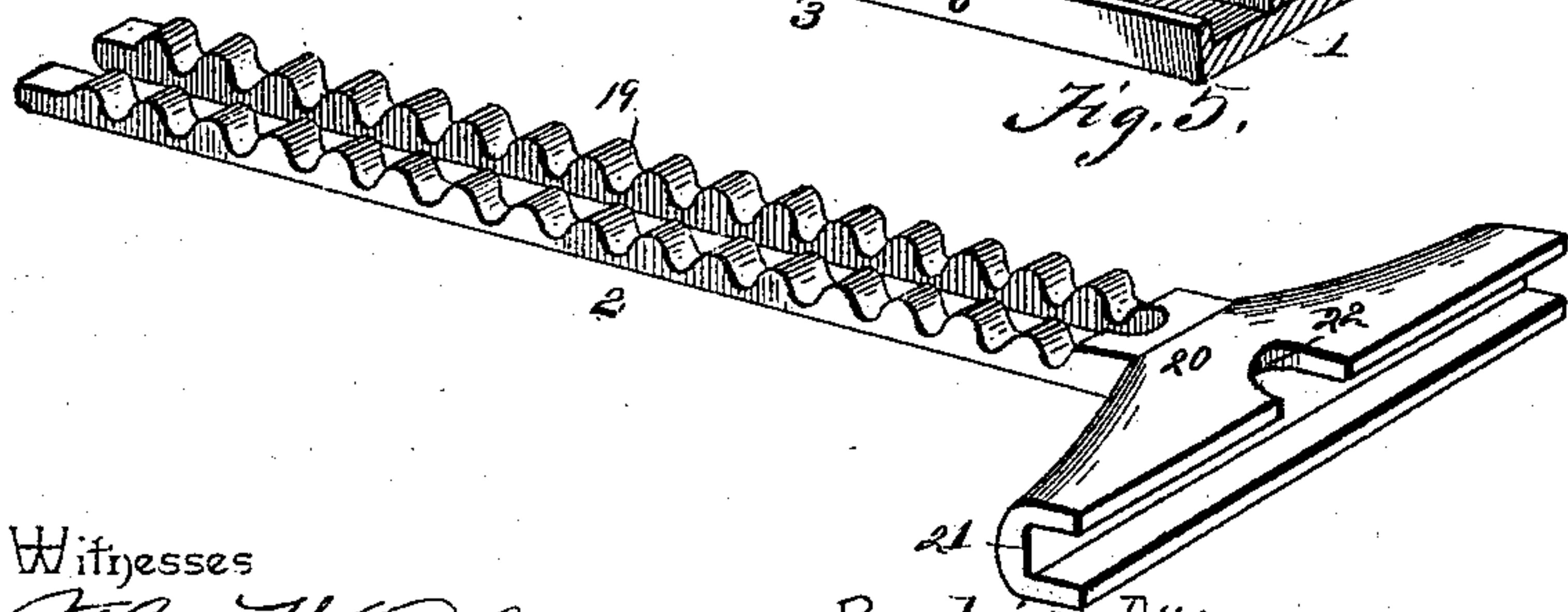
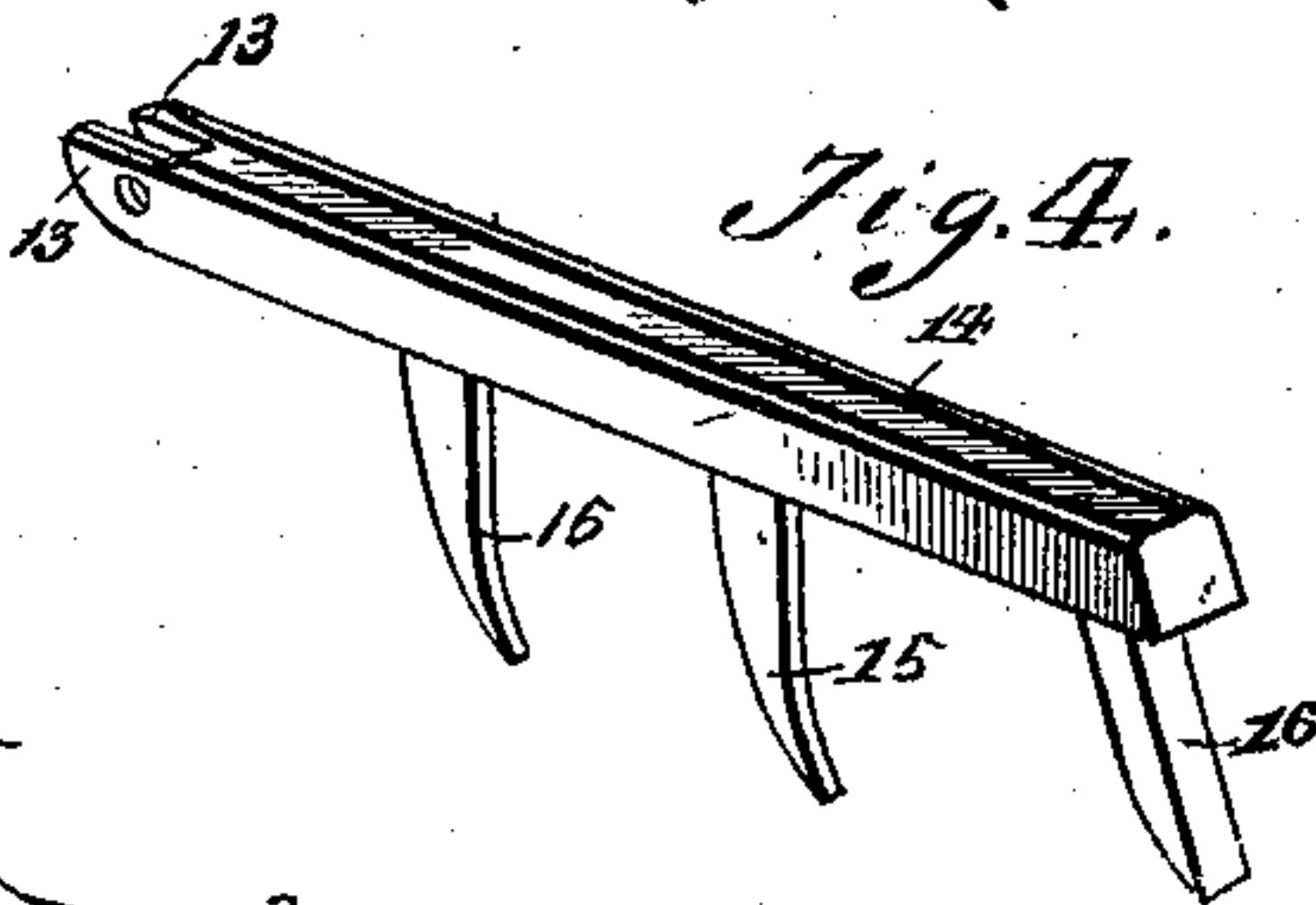
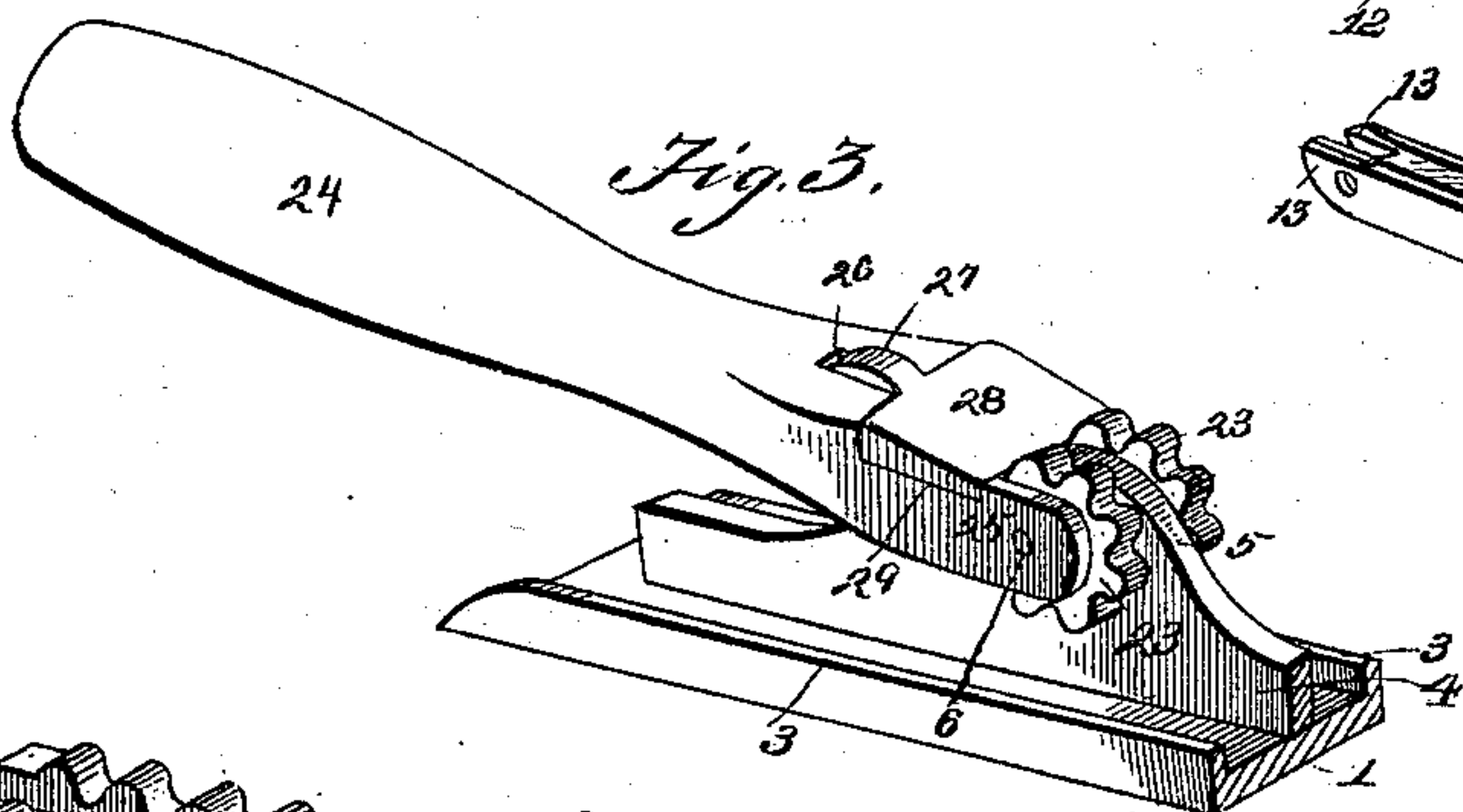
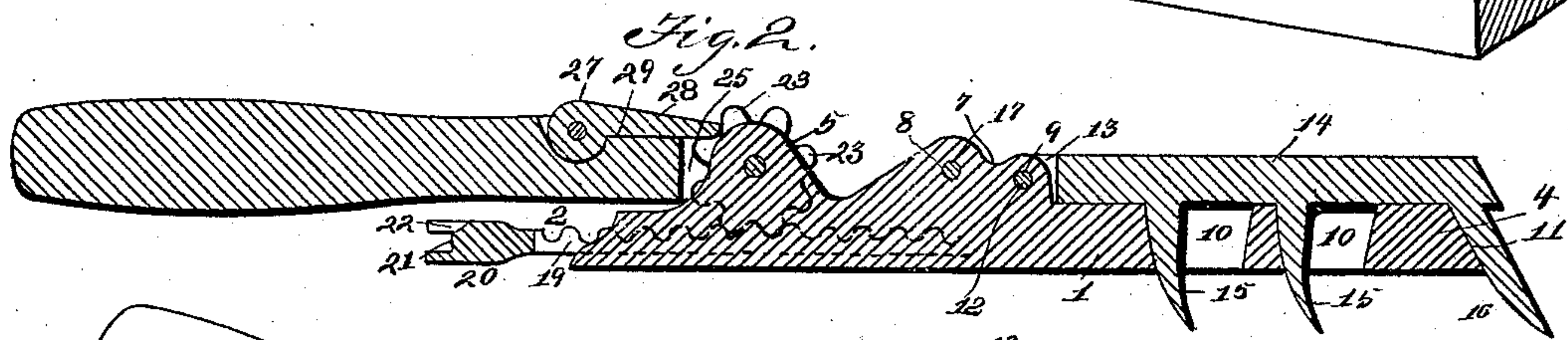
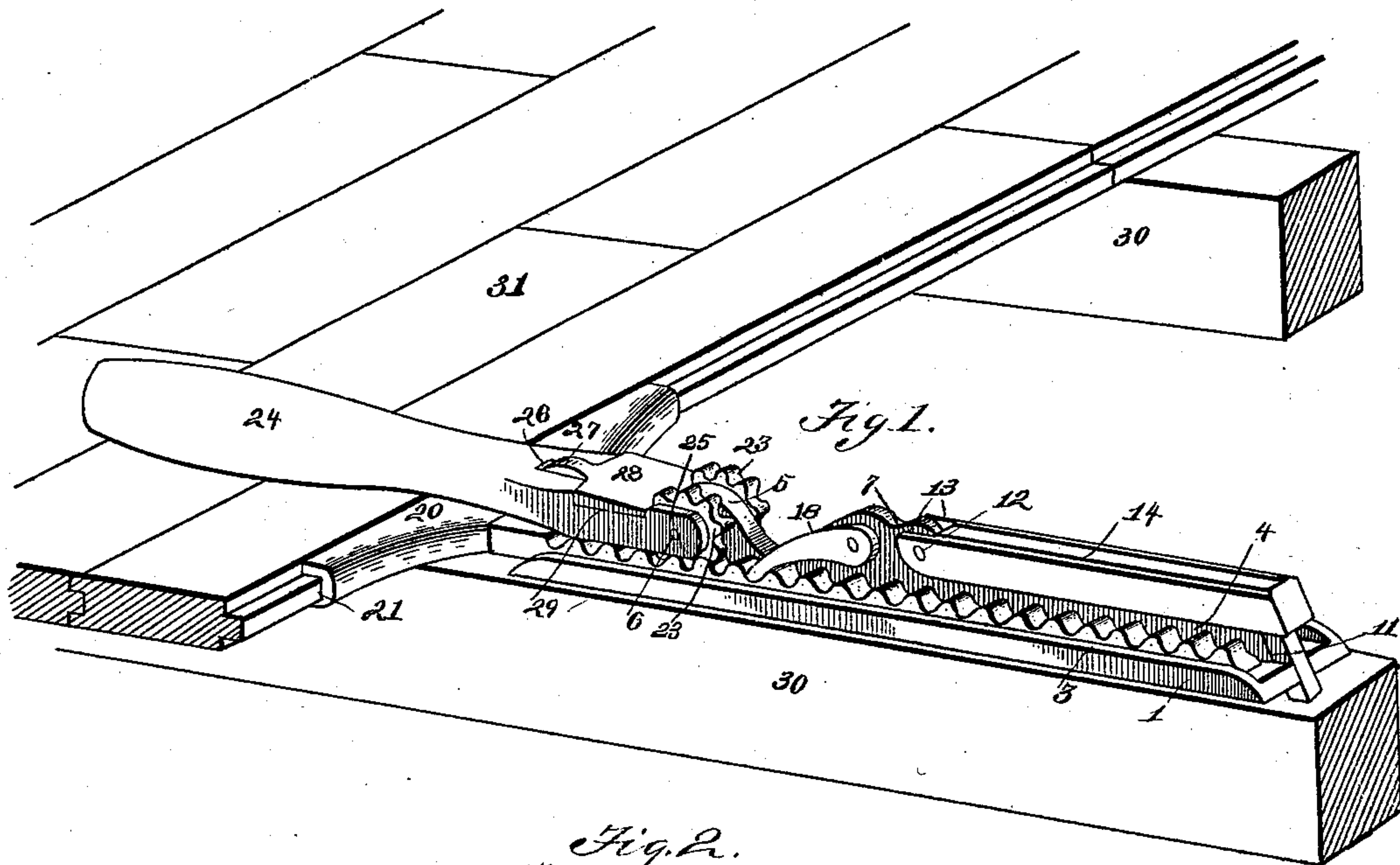


(No Model.)

W. G. WALLACE.
FLOOR CLAMP.

No. 534,590.

Patented Feb. 19, 1895.



Inventor
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Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM G. WALLACE, OF BATH, MAINE.

FLOOR-CLAMP.

SPECIFICATION forming part of Letters Patent No. 534,590, dated February 19, 1895.

Application filed August 14, 1894. Serial No. 520,292. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM G. WALLACE, a citizen of the United States, residing at Bath, in the county of Sagadahoc and State of Maine, have invented a new and useful Floor-Clamp, of which the following is a specification.

This invention is related to that class of floor sets or clamps wherein two slidable sections are provided and combined with rack and pinion mechanism for spreading and contracting them, so that one section may be made stationary and the other section allowed to advance upon the floor and thereby crowd or compress the planks thereof into the proper position; and my invention consists in certain hereinafter specified improvements in the devices for securing one of the sections stationary.

It further consists in certain improved construction of the sliding sections, together with the rack and pinion mechanism for co-operation therewith.

All of these points will be fully described hereinafter and finally embodied in the claims.

In the drawings: Figure 1 represents a perspective view of my improved clamp or set, showing it in operation; Fig. 2, a longitudinal section thereof; Fig. 3, an enlarged perspective of the pinion-actuating lever, together with the pinions thereof and a portion of the framework; Fig. 4, a detail perspective of the spur-bar with its attached spurs; Fig. 5, a detail perspective of the section which is advanced toward the flooring.

The reference numerals 1 and 2 indicate the two sliding sections respectively. The section 1 consists of a plate of cast metal provided with the side flanges 3, extending throughout its length, and with the central rib 4. The rib 4 extends longitudinally with the section 1, and throughout the length thereof. Formed integral with the rib 4 at a point adjacent to the front end is the vertically-extending stud 5, which is provided with a central opening through which the pin 6 is passed. The parts attached to this stud 5 will be left for subsequent description.

Formed integral with the rib 4, and just rearward of the stud 5, is a second stud 7, which is provided with the two openings 8 and 9

respectively, the purposes of which will also be described hereinafter. Rearward of the stud 7, and in the rib 4, the slots 10 are formed. These slots 10 are longitudinally elongated and are two in number. The rear extremity of the section 1 is formed with a notch 11 therein, and this notch is directly adjacent to the beveled rear end of the rib 4. Passed through the opening 9, is a pin 12, which is extended beyond the sides of the stud 7, and which is passed through openings formed in the arms 13 of the spur-bar 14.

The arms 13 are formed integral with the spur-bar 14; and the said bar is of a length equal to the length of the rib 4, rearward of the stud 7. The bar 14 is formed with a plane lower side adapted to rest snugly against the corresponding upper edge of the rib 4, and has rigidly fixed thereto, or formed integral therewith, the downwardly-extending spurs 15 and 16. The spurs 15 are two in number and are respectively adapted to pass through the slots 10 in the rib 4, and to project below the lower side of the section 1; while the spur 16 is arranged to pass into the notch 11, and also to project below the under side of the section 1.

It will be understood that the bar 14 is mounted so as to be capable of swinging in a vertical line, thereby making it possible to raise or lower the spurs 15 and 16 at will.

Located in the opening 8 of the stud 7 is the pin 17, which is also projected beyond the sides of the stud, and which is adapted to form a trunnion or journal for the pawls 18. The pawls 18 are two in number and are arranged one on each side of the rib 4; and, being mounted loosely on the pin 17, are independently movable.

The section 2 consists of two parallel and duplicate rack-bars 19, joined to each other at their forward ends either by forming them integral, or by other means, and of the transversely-extending shoe 20. The shoe 20 is provided at its forward edge with a slot 21, which is adapted to receive the edge of the flooring; while an opening 22 is formed in its upper side and midway between its ends. The purpose of this opening is to permit the passage of a nail in the operation of securing the flooring, as will be more fully described hereinafter.

The bars 19 are adapted to lie one on each side of the rib 4, and within the space inclosed by the flanges 3. Revolvably mounted upon the pin 6 are the pinions 23, which are two in number and arranged one on each side of the stud 5, so that they will respectively engage with the rack-bars 19.

24 indicates a lever, which has its lower end bifurcated to form the arms 25. These arms are adapted to embrace the stud 5 and pinions 23, and to be held in place by the pin 6 aforesaid. Formed in the lever 24, at a point near its lower end, is the notch 26, in which the reduced end or shank 27, of the pawl 28, is pivotally secured. The pawl 28 is elongated laterally so as to be common to both of the pinions 23, and is adapted to lie in an indentation 29, when engaged with the same.

The pawl 28 is arranged on the rear side of the lever 24, so that it may engage positively with the pinions when moving rearwardly and so that it will clack over the teeth thereof when moving forwardly. The pawl 28 is of the gravity class and is adapted to engage with its pinions owing to its normal tendency to drop thereon.

The use of my invention is shown in Fig. 1, and there it will be seen that the section 1 should be placed longitudinally with the joists, 30 for example, and the spurs 15 and 16 of the bar 14 driven into engagement therewith, after which the section 2 should be advanced upon the extremity-board of the flooring, 31, so that the slot 21 of the shoe 20 will receive the edge of said board. To compress the boards of the floor together the lever 24 should now be moved from the front end of the device to the rear, thus revolving pinions 23 and moving the section 2 forwardly. When the desired adjustment of the boards has been attained, the end-board may be driven in place by a nail passed through the opening 22 of the shoe 20. The spurs 15 and 16 may now be released and the device removed until it is desired to use it again.

It will be observed that the pawls 18 are held by gravity in engagement with the rack-bars 19, or the section 2, thus preventing said section from receding before the board at the end has been secured in place.

Various changes in the size, proportion, and arrangement of the parts of my invention may

be resorted to without departing from the substance thereof. Therefore I desire it understood that I am not restricted to the precise construction herein shown, but am entitled to all such variations as come within the above definition.

Having described the invention, I claim—

1. In a floor set, the combination of a stationary section having a longitudinal central rib extending throughout the length thereof, a spindle revolvably mounted near one end of the rib, a pinion mounted at each end of the spindle and arranged one on each side of the rib, a bar pivoted to the rib at a point near its middle and extending to the rear end of the stationary section, said bar having spurs thereon which are capable of passing through openings in the stationary section and of projecting below said section so as to hold it in place, a lever mounted on the spindle, a pawl pivotally mounted on the lever and being transversely elongated so as to engage both of the pinions, whereby they may be operated, a movable section comprising a shoe capable of engaging the flooring, and two parallel rack-bars slidably mounted one on each side of the rib on the stationary section and respectively engaged with the pinions, and two pawls mounted one on each side of the rib and engaged with the respective rack-bars of the movable section, substantially as described.

2. In a floor set, the combination of a main section having a central longitudinal rib extending throughout the length thereof, and a series of vertical openings at one end of the rib, a bar pivotally mounted near the center of the rib and extending to the rear end of the main section, the bar having on its under side a series of spurs projecting through the openings in the rib, a movable section comprising a shoe and two parallel rack-bars, the rack-bars being arranged one on each side of the rib, and means engaged with the rack-bars whereby the movable section may be operated, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILLIAM G. WALLACE.

Witnesses:

GEORGE F. WALLACE,
MARY E. JENNINGS.