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R. McMULLAN

1,911,705

CRAMP

Filed Oct. 6, 1931

Fig. 1.

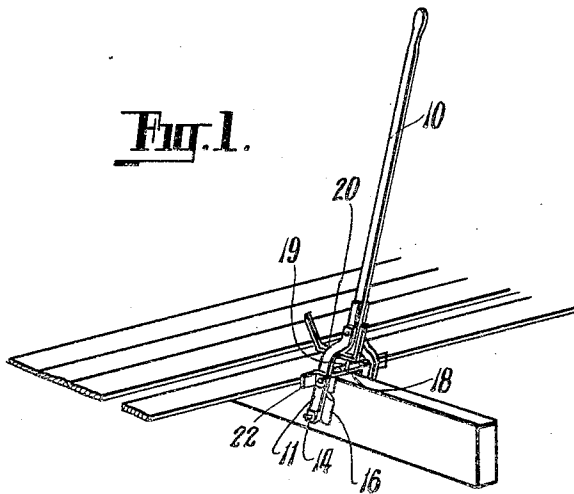


Fig. 2.

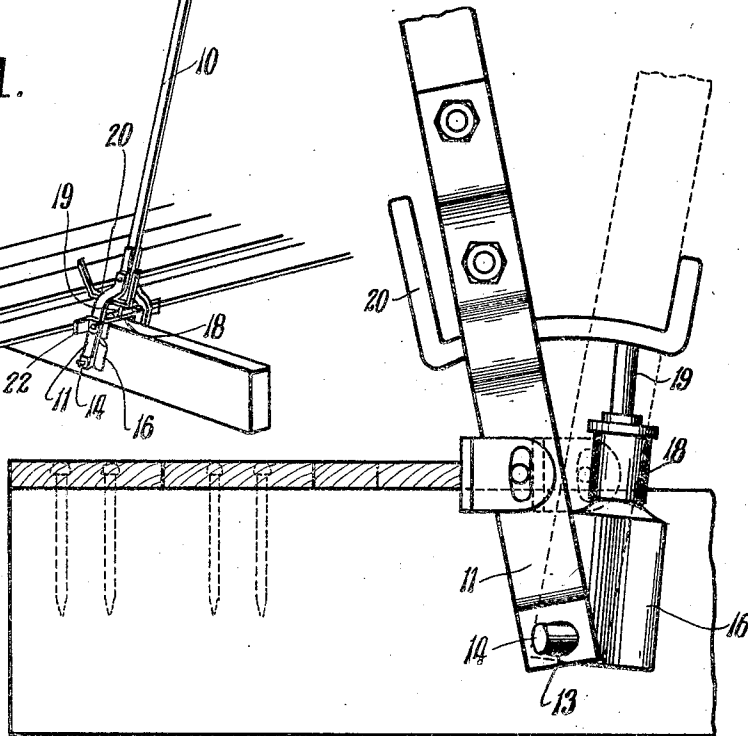


Fig. 3.

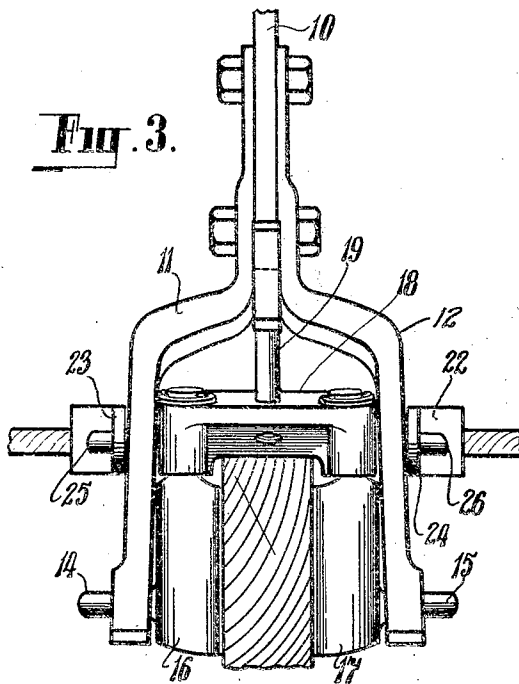
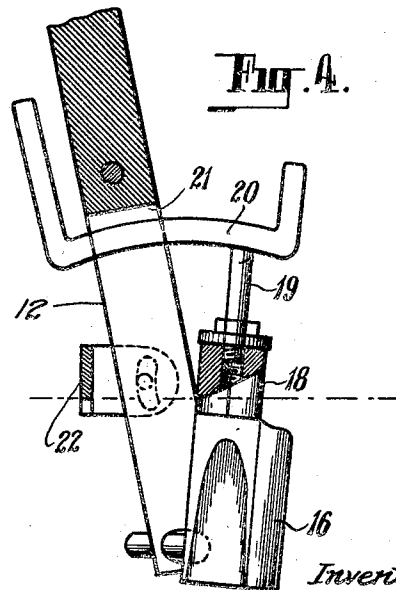


Fig. 4.



Inventor
Robert Mc Mullan.
By William C. Linton
Attorney

UNITED STATES PATENT OFFICE

ROBERT McMULLAN, OF MOUNT LAWLEY, WESTERN AUSTRALIA, AUSTRALIA

CRAMP

Application filed October 6, 1931, Serial No. 567,227, and in Australia October 6, 1930.

This invention relates to a cramp.

Although not limited thereto, this cramp will be of particular utility for cramping flooring boards preparatory to nailing.

Existing cramps have been subject to two major disadvantages, namely, that the amount of take-up is limited, and secondly that it has not been possible to complete cramping of a floor closer than about eighteen inches or two feet from the wall.

The cramp the subject of the present invention can be so readily re-set that its take-up can practically be regarded as unlimited, and furthermore, by its use a floor can be cramped up to within a few inches of the wall.

The invention consists broadly of a cramp comprising a forked lever at one end of which the effort is applied, and at the other end of which an effort is exerted causing dogs firmly to grip the joist whilst the cramping effort is being effected at an intermediate point by means of the lever.

The invention will, however, more readily be understood by reference to the accompanying drawing, in which:—

Figure 1 is a perspective view showing the cramp just about to be used for closing up flooring boards:—

Fig. 2 is a side elevation showing the position when the boards have been cramped, the dotted lines showing where the lever was at the commencement of such action:—

Fig. 3 is a front elevation of the cramp as it will appear before the cramping operation is commenced, and:—

Fig. 4 is a sectional side elevation of the cramp in the cramping position.

In Figs. 2, 3 and 4, the upper portion of the operating lever has been broken off.

Referring now to the drawing, there is a lever 10, at one end of which the effort is to be applied and which at the other end extends in the form of forked members 11 and 12. In each of the members 11 and 12 there is an elongated slot 13 that is of such a size and shape to permit a wide range of movement of lugs 14 and 15 forming part of dogs 16 and 17. These dogs where they face the joist will be cut away to a sharpened or serrated edge for gripping purposes. The upper portion

of the dogs is fashioned so as to be capable of being journalled in a coupling bar 18. Connected at the centre of the coupling bar there is a short rod 19 which in turn is connected to a guide rail 20. The guide rail works in a slot or groove 21, that permits its moving in one plane to the extent permitted by its up-turned ends. There is a pressure plate 22 provided on each side with right-angled lugs 23 and 24, in which are formed slots. Adapted to work in the slots are lugs 25 and 26 integral with the forked members 11 and 12.

The arrangement described is worked in the following manner.

The dogs are pushed over the joist, the contrivance being held in the position shown in dotted lines in Figure 2. The operating handle is then turned to the angle more clearly illustrated in Fig. 1, and the contrivance moved until the pressure plate 22 is against the board against which the cramping effort is to be exerted. The operating lever is then forced to the position shown in full lines in Figure 2, which exercises a considerable cramping effort on the boards, which it will be noticed, is subjected to the pressure of the plate 22. When this effort has been exerted, the boards can be fixed in position by nailing or otherwise. If a further take-up is necessary, the contrivance can be slid along to take a new position and the cramping effort again exerted.

In disengaging the cramp, it is necessary to move the operating handle until the forked members 11 and 12 are approximately in the same plane as what may be termed the dog assembly constituted by the dogs 16 and 17 and coupling bar 18. In doing this, pressure on the dogs is released, and by merely pulling the cramp out in the plane common to the forked levers and the dog assembly, it is released from the joist.

I claim:—

1. A cramp comprising a lever adapted to have the effort applied at or towards one end and forked towards the other end; two dogs loosely connected to the forked members such as by comparatively large holes and lugs formed in such members; and a coupling

bar in which the upper portions of the dogs are journalled.

2. A cramp comprising a lever adapted to have the effort applied at or towards one end and forked towards the other end; two dogs loosely connected to the forked members such as by comparatively large holes and lugs formed in such members; a coupling bar in which the upper portions of the dogs are journalled; a guide rail connected to the coupling bar; and a groove formed in the operating lever or the fork thereof serving as a guide.

3. A cramp comprising a lever adapted to have the effort applied at or towards one end and forked towards the other end; two dogs loosely connected to the forked members such as by comparatively large holes and lugs formed in such members; a coupling bar in which the upper portions of the dogs are journalled; a rod connected to the coupling bar at one end; a guide rail connected to the said rod; and a groove formed in the operating lever or the forked portion thereof to act as a guide.

4. A cramp comprising a lever adapted to have the effort applied at or towards one end and forked towards the other end; two dogs loosely connected to the forked members such as by comparatively large holes and lugs formed in such members; a coupling bar in which the upper portions of the dogs are journalled; and a pressure plate pivotally supported from the forked members.

Dated this 20th day of July 1931.

ROBERT McMULLAN.

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