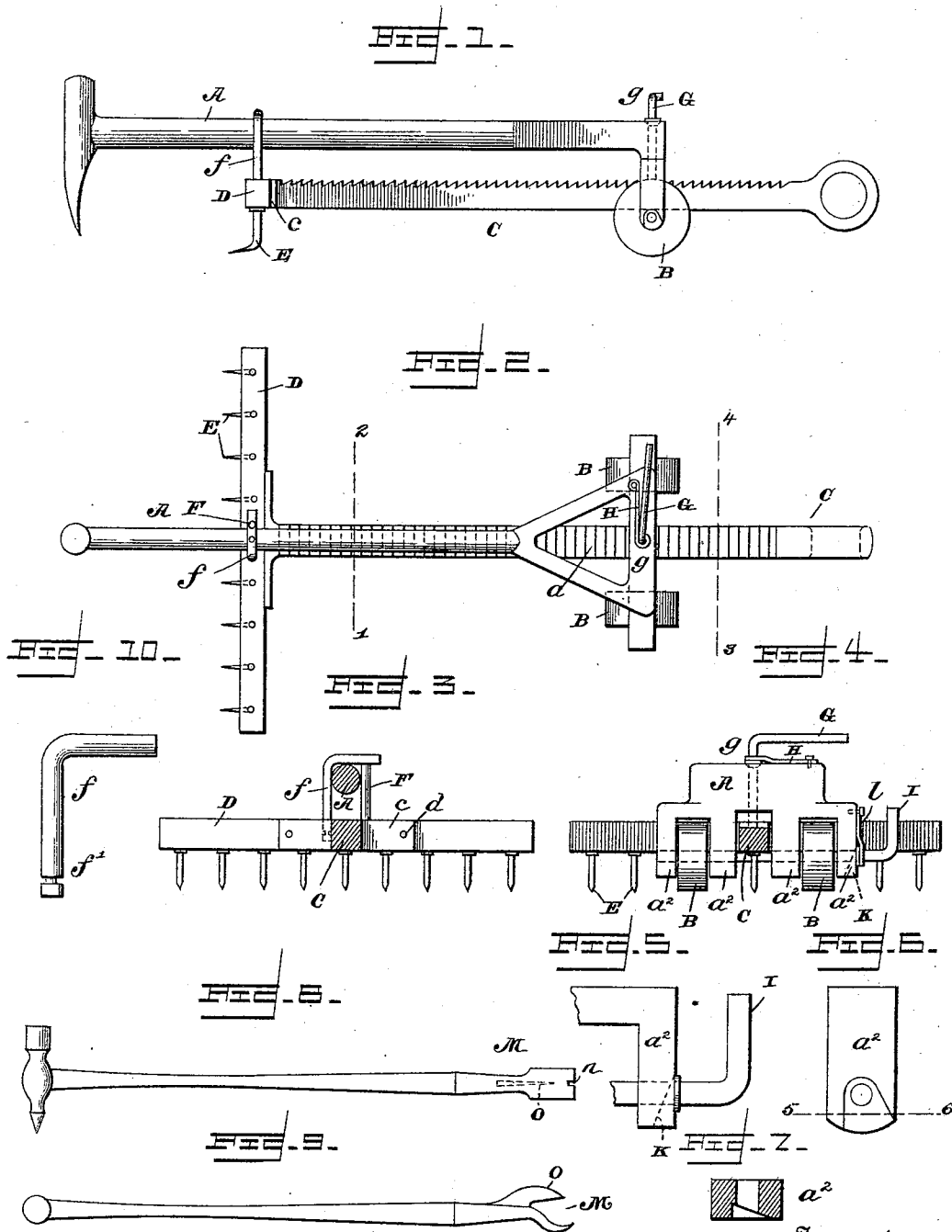


(No Model.)

O. DAHL.
CARPET STRETCHER.

No. 470,039.

Patented Mar. 1, 1892.



Witnesses

E. S. Duvall Jr.
Wm L. Boyden

Inventor

Ole Dahl.
per Fred A. Wacker.

Attorney

UNITED STATES PATENT OFFICE.

OLE DAHL, OF MUSKEGON, MICHIGAN.

CARPET-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 470,039, dated March 1, 1892.

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To all whom it may concern:

Be it known that I, OLE DAHL, a citizen of the United States, residing at Muskegon, in the county of Muskegon and State of Michigan, have invented certain new and useful Improvements in Carpet-Stretchers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to an improvement in carpet-stretchers and tools for operating the same, the object being to provide a simple, durable, and efficient carpet-stretcher; and the invention therefore consists in the construction, arrangement, and combination of the several parts, substantially as will be hereinafter described and claimed.

In the accompanying drawings, illustrating my invention, Figure 1 is a side elevation of my improved carpet-stretcher. Fig. 2 is a top plan view of the same. Fig. 3 is a cross-sectional elevation on the line 1 2 of Fig. 2. Fig. 4 is a similar cross-sectional elevation on the line 3 4 of Fig. 2. Figs. 5, 6, 7, and 10 represent details of the construction of certain of the parts of my improved carpet-stretcher, said Fig. 7 being a section on the line 5 6 of Fig. 6. Figs. 8 and 9 represent side and edge views, respectively, of the tool which I employ for operating the device.

Like letters of reference designate corresponding parts throughout all the different figures of the drawings.

A denotes a horizontal iron or metallic bar of suitable length and size, having on its forward end a downwardly-extending right-angled pointed projection, the lower end of which is sharpened sufficiently to enable it to be driven easily into the floor-wall. At the upper end of this pointed projection is a flattened head which, is adapted to receive the blow. The rear end of bar A is formed with an angular opening *a* of suitable size and shape. This rear end is also provided with downwardly-projecting vertical rods *a*², (see Fig. 4,) in which are journaled the wheels B.

C designates an elongated horizontal ratchet-bar having at its forward end a right-angled or T bar *c*, to which the cross-bar D is firmly secured by means of bolts *d* or by some other suitable securing means, said bar D be-

ing preferably a wooden bar and provided on its under side with a series of right-angled or other suitably-shaped hooks E, screwed or otherwise securely fastened into the bar, said hooks being adapted for the purpose of engaging with the carpet when the machine is used for the purpose of stretching it. Bar D may have any suitable length desired.

Bar D is provided with a stationary vertical pin F, fastened immovably therein, and also with a right-angled movable pin *f*. The pin *f* is swiveled in the bar D, so that it may be capable of being turned. An enlarged view of this pin is shown in Fig. 10. Its lower end is provided with an annular groove *f*'. When pin *f* has been inserted in the bar to the proper depth, a pin or nail will be driven through the bar alongside of the ring, taking into the groove *f*', and thereby holding the bolt *f* in position and allowing it to swivel around. It will be obvious by referring to Fig. 3 that the pin *f* may be turned, so as to have its horizontal part in contact with the upper end of the rigid pin F or out of contact therewith. Consequently bar A may be inclosed between the rigid pin F and movable pin *f*, or may be disengaged therefrom whenever desired.

G designates a right-angled pin or bolt, which has its lower end properly shaped to engage with the teeth of the ratchet C. These teeth, it will be observed, are made like ordinary ratchet-teeth, one side being inclined, while the other is perpendicular. The pin G is provided with a countersunk collar *g*, which projects somewhat above the upper surface of the bar A, near the rear end of said bar, behind the opening *a*. The countersunk collar is of course formed rigid upon the pin G. Pin G is kept down to its proper place with its lower end in engagement with the teeth of the ratchet by means of a spring, one end of which is secured to the bar A by means of a set-screw or by any other suitable means, while the other end winds around the body of pin G and rests upon the top of the collar *g*. Thus it will be seen that the pin G is held yieldingly by means of its spring.

By referring to Fig. 4 the two wheels B may be seen. The left-hand wheel B is journaled on a stationary pin supported in one pair of stationary jaws *a*². The right-hand wheel B

is journaled on the movable pin I, supported in the other two stationary jaws a^2 . Pin I extends through both jaws and has its inner end, as is shown in Fig. 4, partly below the ratchet-bar C for the purpose of keeping the ratchet in its proper position while the machine is in operation, and the vertical outer right-angled end of pin I provides a handle for operating the pin. This pin is provided with an angular part K, which fits into an angular recess in the right-hand projection a^2 . The pin I is kept in place by means of a spring l , secured by means of a set-screw or other device to the rear part of the bar A and bearing upon the angular enlargement K.

In Fig. 5 the pin I is shown in position with its enlargement K in place in the angular recess in the jaw a^2 .

Figs. 8 and 9 represent two views of the tool for operating the machine. One end of this tool is provided with a hammer-head, as shown, while the other end affords a combination-tool, the part M being used for the purpose of prying or forcing the ratchet-bar ahead, as I shall presently describe. The center of part M is provided with a slot m , adapted for the purpose of enabling the tool to draw tacks, and the tool is also provided with a blade O, which may be used, when desired, for the purpose of opening cans.

Figs. 1, 2, 3, and 4 represent the machine in position ready for use.

In operating this machine the point of the bar A will first be driven into the floor, and then the rack or ratchet bar will be drawn back as far as desired. The hooks E are then inserted into the carpet after the rack is moved forward by means of the curved part M of the working tool. (Shown in Figs. 8 and 9.) This is accomplished by inserting the end of the tool through the angular opening a in the bar A and causing the end M of the tool to engage the teeth of the ratchet successively. The rear part of the bar A on the side of the slot a serves as a fulcrum, while the tool acts as a lever, and the ratchet is thus forced forward. As the rack moves ahead the vertical pin G will be lifted once for every tooth in the rack, and as the front side of the pin is perpendicular the rack cannot move back while the pin is in engagement therewith. After the carpet has been sufficiently stretched the device will be left locked until the carpet has been securely nailed. When it is necessary to change the position of the carpet-stretcher so as to stretch another part of the carpet, the pin G will be turned half-way round, and then the ratchet-bar C can be run back, as it will then slide on the angular side of the end of the pin.

When it is desired at any time to take the machine apart, the pin f will be turned around out of the way of the bar A, thereby releasing the front end of the latter. Then by turning the pin I till the highest point of the angular projection K reaches the surface of the lug a^2 , the horizontal end of the pin, which, as has

been seen, projects beneath and partially supports the ratchet-bar, will be drawn out flush with the inside face of the lug a^2 , and consequently the rear end of the ratchet-bar will be released from the bar A, and bar A and ratchet C may be disconnected from each other.

Numerous changes may be made in the details of the construction of my improved carpet-stretcher without departing from the invention.

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

1. In a carpet-stretcher, the combination of a horizontal bar having a pointed end, a ratchet-bar loosely connected with said bar, cross-bar carried at the forward end of the ratchet-bar and having hooks or teeth that engage the carpet, and a loose angular pin supported in the first-mentioned bar, the lower end of which pin engages the teeth of the ratchet-bar, and a tool for actuating the ratchet-bar, substantially as described.

2. In a carpet-stretcher, the combination of the main bar having one end pointed and the other end slotted, a ratchet-bar carrying at its forward end the cross-bar provided with teeth or hooks that engage the carpet, rollers journaled in the rear end of the main bar, a yielding pin supported in the rear end of the main bar and having its lower end engaging the teeth of the ratchet, the devices for connecting the main bar and the ratchet-bar, and a tool for actuating the ratchet-bar, substantially as described.

3. The combination of the main bar, a ratchet-bar carrying the hook-provided cross-piece, the right-angled swiveled pin likewise thereon, and a tool for actuating the ratchet-bar, substantially as described.

4. The combination of bar A, having a pointed projection at one end and a slot at the other, a ratchet-bar C, carrying the cross-piece D, having hooks E, a rigid pin F and loosely-swiveled right-angled pin f on the cross-piece D, the spring-provided pin G, the wheels B, journaled in the rear end of the bar A, the adjustable pin I for one of said wheels, and the tool for actuating the ratchet-bar, substantially as specified.

5. The combination, with the ratchet-bar, of the main bar A, having a pointed projection at one end and a slot a at the other, and the downwardly-extending jaws a^2 , one of which is provided with an angular recess or cam-face, the rollers B, journaled between said jaws, one having a fixed journal and the other having a right-angled journal I, provided with an angular lug or cam K, the inner end of said pin I resting beneath the ratchet-bar, and a tool for actuating the ratchet-bar, substantially as described.

6. The combination of the main bar A, ratchet-bar C, cross-bar D, and loosely-swiveled right-angled pin f , also on the cross-bar D, right-angled pin G, having its lower end

engaging the teeth of the ratchet C, the rollers B, the projections a^2 on the under side of bar A, one of which is provided with an angular recess or cam-face, in which projections
5 the rollers B are journaled, one of said rollers having a rotary pin I provided with a cam, on which pin one of the wheels B is journaled, said pin being supported in stationary jaws and extending through said jaws, so that
10 its inner end may lie partly below the ratchet-bar, all substantially as described.

7. In a carpet-stretcher, the combination of the main bar A, having a pointed projection

at one end and a slot a at the other, the ratchet-bar C, loosely connected to the bar A 15 and carrying the cross-piece D, having teeth or hooks E, and the tool for actuating the ratchet-bar, said tool having an end M, which is adapted to engage the teeth of the ratchet, substantially as described. 20

In testimony whereof I affix my signature in presence of two witnesses.

OLE DAHL.

Witnesses:

ROBERT WIN,
L. G. RIPLEY.