

(No Model.)

V. P. VAN HORNE & A. J. FISHER.

CARPET STRETCHER.

No. 356,017.

Patented Jan. 11, 1887.

Fig. 1.

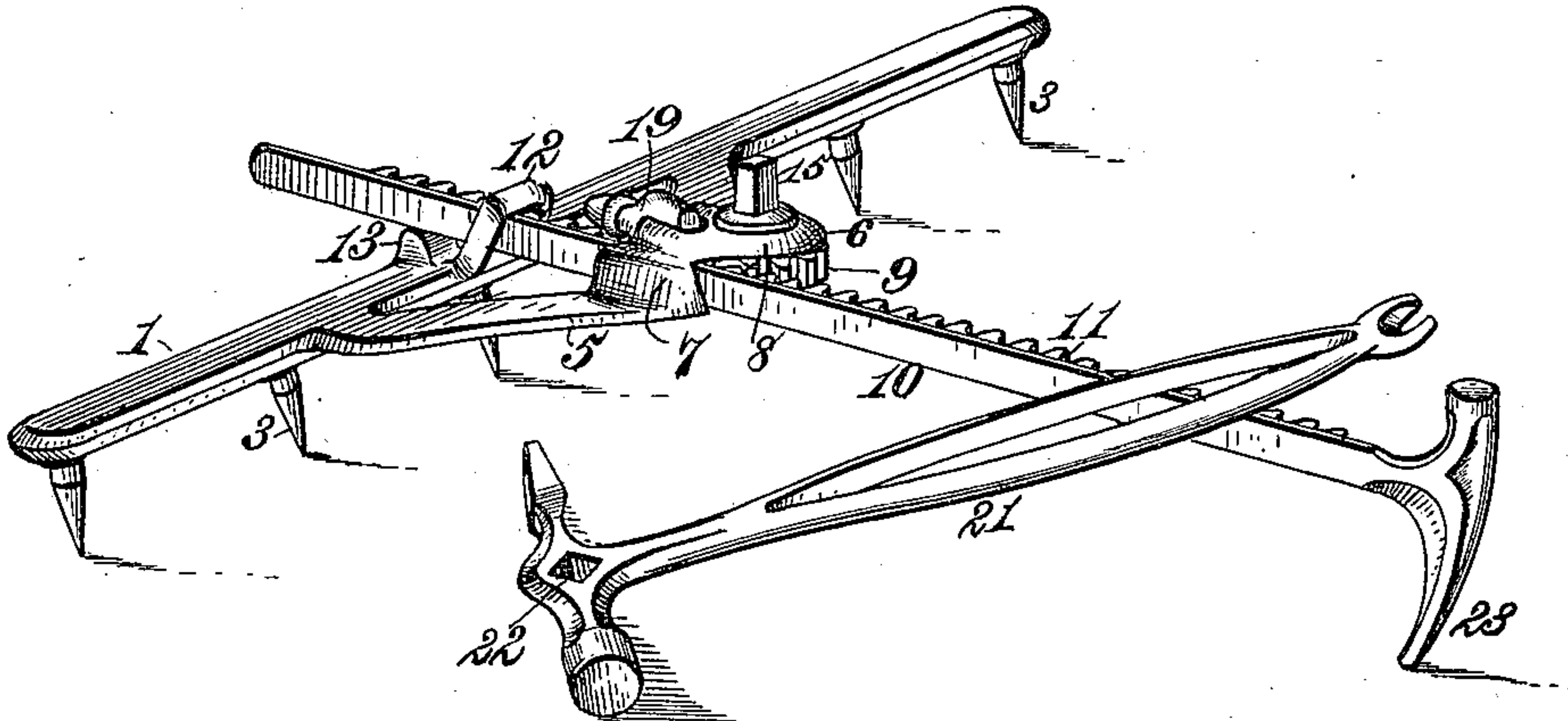


Fig. 2.

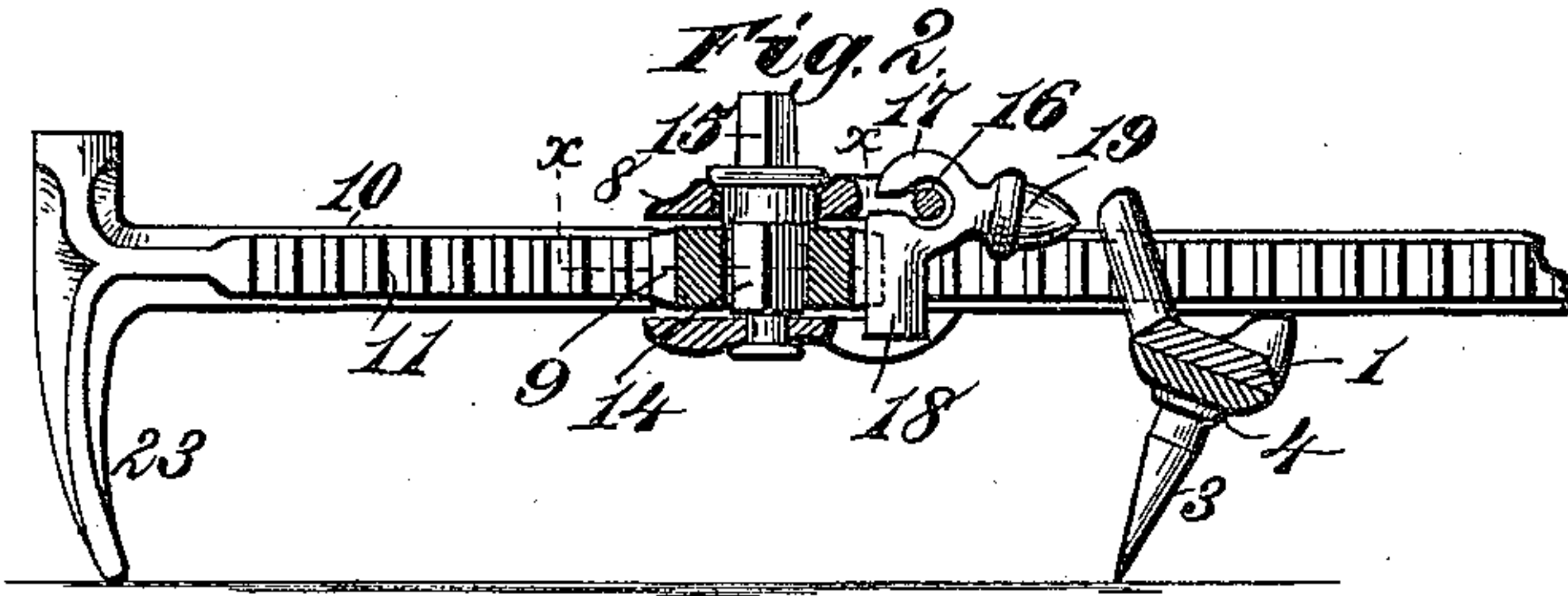


Fig. 3.



Fig. 4.

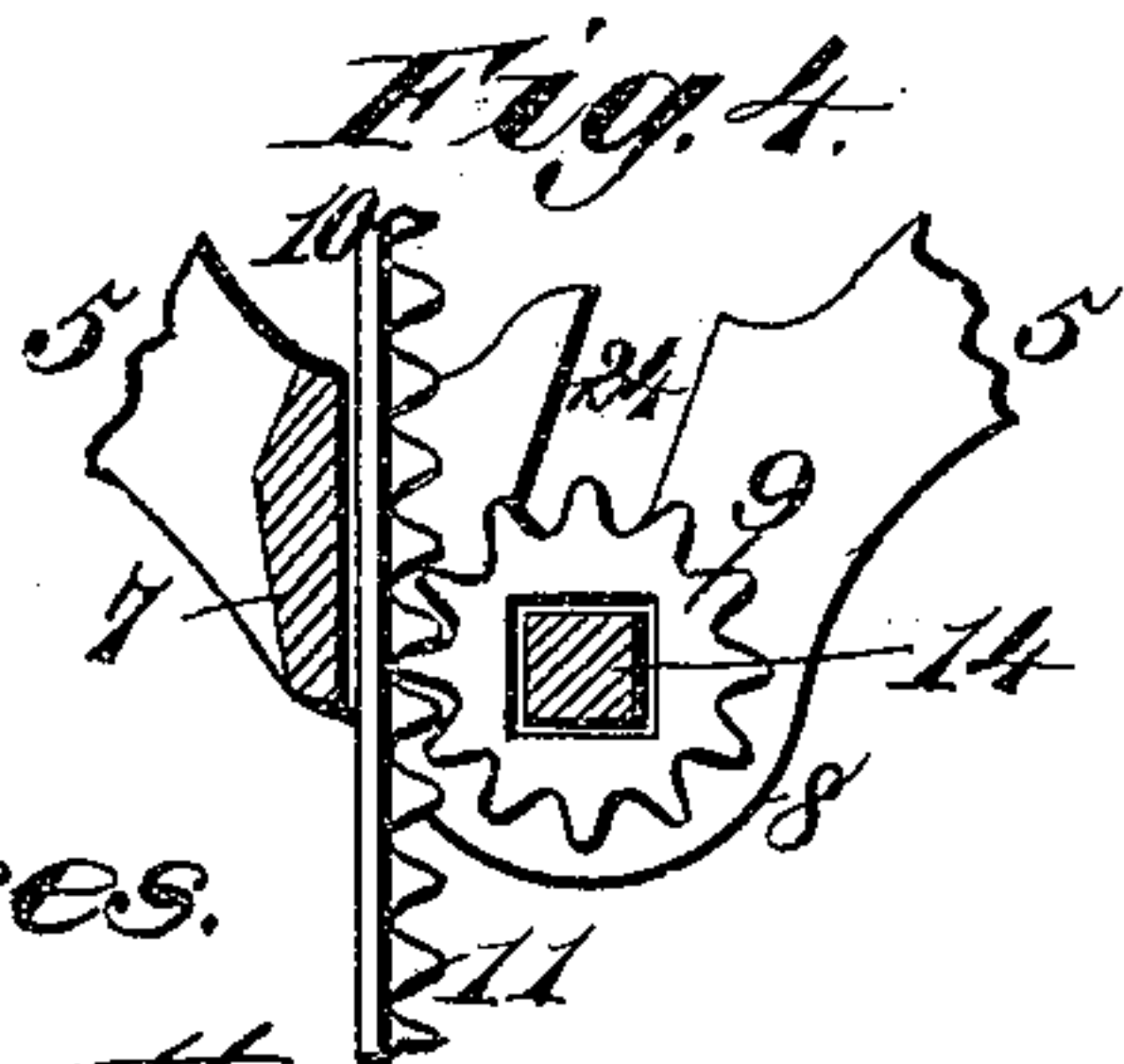
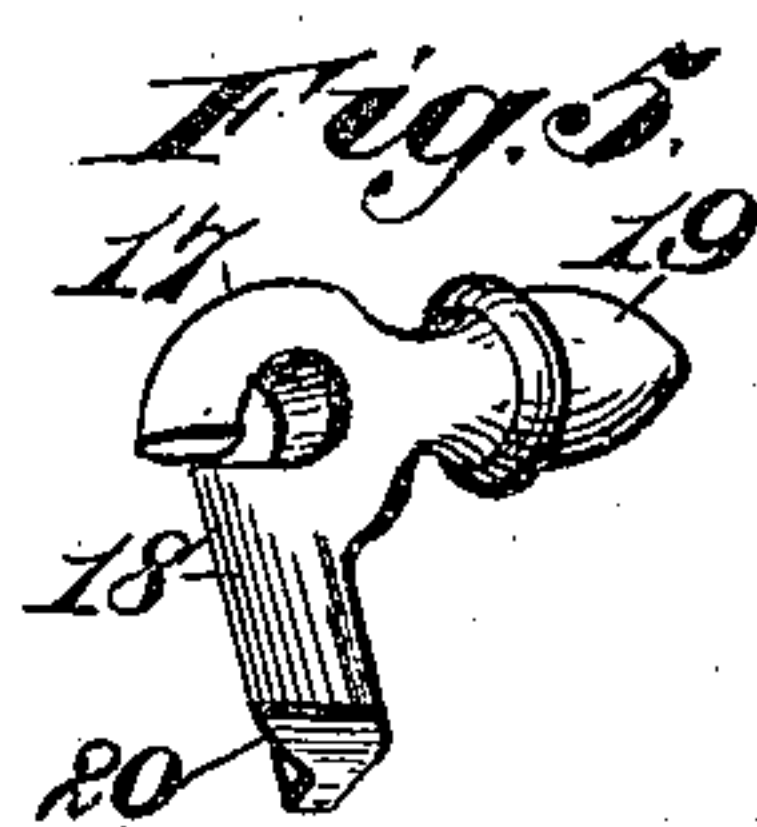


Fig. 5.



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UNITED STATES PATENT OFFICE.

VICTOR P. VAN HORNE AND ANDREW J. FISHER, OF DAYTON, OHIO, ASSIGN-
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CARPET-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 356,017, dated January 11, 1887.

Application filed August 19, 1886. Serial No. 211,288. (No model.)

To all whom it may concern:

Be it known that we, VICTOR P. VAN HORNE and ANDREW J. FISHER, citizens of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented new and useful Improvements in Carpet-Stretchers, of which the following is a specification.

This invention relates to those carpet-stretchers in which a spiked stretcher-bar is moved upon a rack-bar by means of a pinion for the purpose of stretching carpets on floors and holding the same stretched while being tacked or otherwise secured.

The object of our invention is to improve such carpet-stretchers; and it consists in the features of construction and combination of devices hereinafter described and claimed, reference being made to the accompanying drawings, in which—

Figure 1 is a perspective view of a carpet-stretcher embodying our invention, showing the lever for operating the pinion detached; Fig. 2, a transverse sectional view of the stretcher-bar taken centrally through the pinion; Fig. 3, a detail longitudinal sectional view of the stretcher-bar; Fig. 4, a sectional view through the pinion on the line *x x*, Fig. 2; and Fig. 5, a detail perspective view of the gravity-pawl for locking the pinion.

In order to enable those skilled in the art to make and use our invention we will now describe the same in detail, referring to the drawings, where—

The numeral 1 indicates the stretcher-bar composed of two plates riveted or otherwise secured together to clamp the enlarged heads 2 of the spikes or pointed pins 3 between them. The spikes pass through holes in the under plate, and the latter is countersunk or recessed on its inner surface, as at 4, to receive the spike-heads, in such manner that the two plates can be secured in close contact with each other. The upper plate of the stretcher-bar is provided with forwardly-projecting arms 5, joined together and formed with a bracket, 6, which rises vertically from one arm, as at 7, and then extends horizontally, as at 8, to constitute, in conjunction with the connected parts of the arms 5, a housing for

the pinion 9, which is located and revolves in a horizontal plane between the said arms 5 and the horizontal part of the bracket. A bar, 10, with a rack, 11, at one side, is located between the pinion and the vertical part 7 of the bracket, said vertical part thereby serving to guide the rack-bar and hold it in engagement with the pinion. The upper plate of the stretcher-bar is formed with a vertical loop, 12, through which the rack-bar passes, and by which it is accurately guided, and said stretcher is also furnished with a lug, 13, on which the rack-bar rests. The pinion is mounted on a shaft, 14, having an angular head, 15, and journaled to rotate in orifices formed, respectively, in the horizontal part 8 of the bracket and the connected parts of the arms 5, and the bracket is provided with a loop, 16, from which is suspended by an eye, 17, the gravity locking-pawl 18, having a weighted arm, 19, for throwing its acting end into engagement with the teeth of the pinion. The acting end of the pawl is beveled, as at 20, so that it will ride past the teeth of the pinion when the latter is rotated in the proper direction to adjust the stretcher-bar on the rack-bar in stretching the carpet, but will fall by gravity into engagement with and lock the pinion against a reverse rotation, unless intentionally disengaged therefrom by lifting its weighted arm.

The lever 21, for rotating the pinion, is constructed in the form of a hammer having its head provided with an angular socket, 22, for engaging the angular head of the pinion-shaft in such manner that after the carpet has been stretched the hammer can be detached and used for tacking the carpet and other desired purposes.

The rack-bar is provided at one end with a claw, 23, for engaging the floor while the pinion is rotated to move the stretcher-bar along the rack-bar to stretch the carpet.

The parts are so constructed and arranged that the angular head of the pinion-shaft will be sufficiently elevated above the other parts as to permit the combined lever and hammer to make a complete revolution without obstruction.

The parts comprising the carpet-stretcher are of metal, and are cast, the upper plate of

the stretcher-bar being cast integral with the bracket for housing the pinion and the guide loop and lug.

The connected parts of the arms 5 are provided with a slot, 24, the sides of which are parallel, and serve to guide the acting end of the gravity locking-pawl in its swinging movements, and one of the sides of said slot serves as an abutment to the pawl when holding the pinion in its locked position.

The stretcher-bar, as shown, is provided with several spikes or pointed pins of the character described; but the number of the spikes may be varied to suit the conditions required.

Heretofore a carpet-stretcher has been composed of a box containing a pinion and provided with carpet-clamping jaws, a rack-box extending through the box and engaging the pinion and having a spike at one end, a spring-pawl for locking the pinion, and a lever for rotating the pinion. Such, therefore, I do not claim.

Having thus described our invention, what we claim is—

1. The spiked stretcher-bar 1, provided with the forwardly-projecting bracket-arms 5, formed with the bracket 6, comprising the connected ends of the arms, the vertical projection 7, and the horizontal extension 8, in combination with the horizontal pinions 9, journaled in said bracket, the freely-swinging

weighted gravity locking-pawl 18, suspended from the horizontal extension of the bracket, and having a beveled acting end, 20, and the rack-bar 10, engaging the pinion, substantially as described.

2. The spiked stretcher-bar 1, having a bracket, 6, provided with a loop, 16, the pinion 9, journaled in the bracket, and the rack-bar 10, engaging the pinion, in combination with the pendent gravity locking-pawl 18, having a beveled lower end, 20, and provided at its upper portion with an eye, 17, engaging the loop on the bracket, and by which the pawl is freely suspended, substantially as described.

3. The combination, in a carpet-stretcher, of the spiked bar 1, having the slot 24, provided with parallel sides, the rotary pinion 9, the pinion-shaft 14, the rack-bar 10, having a spike, 23, and the freely-swinging pendent weighted gravitating pawl 18, having the lower beveled portion, 20, with its lower end arranged in the slot, and guided in its swinging movements by the sides of said slot, substantially as described.

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

VICTOR P. VAN HORNE.
ANDREW J. FISHER.

Witnesses:

CHAS. H. SCHAEFFER,
GEORGE O. WARRINGTON.