ADJUSTABLE DECKING AND FRAMING TOOL

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ABSTRACT

A horizontal base bar is pivotally connected at one end with a vertical lever arm having a point engageable with a wooden structure. A plurality of different attachments may be connected with the other end of the base bar. A decking attachment may be connected in one position for pushing deck boards together on their supporting joists. When the decking attachment is turned over, it may be used for pulling loose deck boards against deck boards which have already been nailed. A T-shaped wall moving attachment is adapted for squaring a wall framing on a floor before erection. A spike attachment is adapted for both pushing and pulling movements to align erected wall frames on a floor.

1 Claim, 6 Drawing Figures
ADJUSTABLE DECKING AND FRAMING TOOL

BACKGROUND OF THE INVENTION

This invention relates to an adjustable decking and framing tool for use in wooden building construction. Devices have been made heretofore for pushing and pulling deck boards into position for nailing, but such devices have been in the nature of single purpose tools which lacked any other utility in the construction industry. It is desired to provide a tool which is adapted also to perform other common functions in the building industry for which suitable tools have not been heretofore provided.

Objects of the invention are, therefore, to provide an improved tool for the purposes described and to provide a device having a decking attachment for either pushing or pulling decking into position for nailing, an attachment for squaring wall frames, and an attachment for aligning wall frames.

SUMMARY OF THE INVENTION

The present device comprises a base bar having pivotal connection at one end with a lever arm provided with a point which is engageable with a wooden structure to apply either a pushing or pulling movement to the base bar. A decking attachment on the other end of the base bar may be used in one position for pushing decking boards together and in a different position for pulling them together. A T-shaped wall moving attachment is adapted for squaring wall frames on the floor before erection of the wall. A spike attachment is adapted for aligning erected walls, this attachment being adapted for both pushing and pulling movements.

The invention will be better understood and additional objects and advantages will become apparent from the following description of the preferred embodiments illustrated on the accompanying drawings. Various changes may be made, however, in the details of construction and arrangement of parts and certain features may be used without others. All such modifications within the scope of the appended claims are included in the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is an exploded perspective view of a device embodying the invention;
FIG. 2 is an enlarged perspective view of the point on the lever arm;
FIG. 3 is a perspective view showing the decking attachment used for pushing deck boards together;
FIG. 4 is a side elevation view showing the decking attachment used for pulling deck boards together;
FIG. 5 is a perspective view showing the use of the wall moving attachment for squaring a wall frame before erection; and
FIG. 6 is a perspective view showing the use of the spike attachment for aligning an erected wall frame.

DESCRIPTION OF THE PREFERRED EMBODIMENT

In FIG. 1 a base bar 10 preferably comprises a square metal tube having a pair of plates or straps 11 welded on one end of the tube to form a clevis. Holes 12 in straps 11 receive a clevis pin 13 for a lever arm 15 which is also preferably a square metal tube. Pin 13 extends through holes 16 in the lower end of lever arm 15.

A screw threaded point element 20 is secured in a nut 21 welded on the lower end of lever arm 15. As shown in FIG. 2, point element 20 preferably comprises a length of sharpened bolt shank having a nut 22 welded thereto as indicated at 23 so that the point element may be tightened in nut 21 by a wrench.

Base bar 10 is adapted to receive several different attachments for the various purposes explained above. A decking attachment 25 comprises a square metal tube 24 forming a shank which is adapted to telescope over the base bar 10. One end of the tubular shank 24 has holes 26 to receive a pin 27 which may be inserted in appropriate ones of a series of holes 28 spaced along the base bar 10. An abutment plate 30 is welded on the opposite end of the tubular shank 24 so as to project at a right angle from one side thereof. The projecting end of plate 30 has welded thereto a rod 31 extending transversely of plate 30 and the shank 24.

By turning the abutment plate 30 upward the device may be used on joists to crowd decking planks together for nailing as shown in FIG. 3. Thus, when point 20 is caused to penetrate into joist 35, movement of lever arm 15 to the left will cause abutment plate 30 to crowd the planks tightly together for applying the nails 36.

When it is desired to pull the planks together from the opposite direction, the decking attachment 25 is turned over so as to cause abutment plate 30 to project downward as shown in FIG. 4. Bar 31 then is disposed parallel with clevis pin 13 and is adapted to engage the edge of the last plank below its tongue so that a great pulling force may be applied without crushing the tongue. In this arrangement the point 20 is engaged with a plank that has already been nailed to the joist 35.

The sharpened end of point element 20 is preferably curved and may be oriented to obtain the most effective grip on the planks by removing pin 13 and rotating the lever arm to reverse the orientation of the point element. The number of loose boards that can be crowded together in one operation is determined by the particular hole 28 in which pin 27 is placed whereby the distance between point 20 and abutment plate 30 may be varied through a wide range.

Wall moving attachment 40 comprises a transverse abutment plate 41 connected at its center to a short tubular shank 42 which forms a socket to receive the end of base bar tube 10. A hole 43 is arranged to receive pin 27 which may be inserted in the end hole 28 or in a hole 44 in the base bar 10, depending upon whether it is desired to have abutment plate 41 project horizontally or vertically.

FIG. 5 shows the use of wall moving attachment 40. Pin 45 is inserted in end hole 28 causing abutment plate 41 to extend in a horizontal direction. In this application the device is used for squaring a wall frame W which has been nailed together in horizontal position on the floor F. Point 20 is engaged in the floor and the action of the lever arm applies a pulling force to the corner of the wall frame as may be necessary to make the corner square.

Spike attachment 50 comprises a plate or strap member 51 having one end equipped with a spike 52 while the other end is welded to a short tubular shank or socket member 53. Spike 52 may be turned in either vertical or horizontal direction as desired. Pin 27 in holes 54 may be inserted in either holes 28 or 44 in base bar 10.
FIG. 6 shows the application of the spike attachment 50 to a wall frame W which has been erected on the floor F. By using pin 27 to secure the spike attachment to base bar 10 with spike 52 directed downward, the spike may be impaled in wall plate 56 for either pushing or pulling the wall into predetermined alignment and position on the floor. The penetration of point 20 into the floor provides suitable leverage in both directions of movement of lever arm 15 for either pushing or pulling on the wall plate or doing both alternatively.

The present tool is versatile and still other uses will occur to persons skilled in the art, wherever members or structures are to be pushed or pulled into a desired position or alignment. The tool is not limited to use on the floor.

Having now described our invention and in what manner the same may be used, what we claim as new and desire to protect by Letters Patent is:

1. A decking and framing tool comprising a square tubular base bar, a pair of rigid strap members extending from one end of said base bar on opposite sides thereof forming a clevis, a clevis pin spanning said strap members; a tubular lever arm having a transverse hole near one end thereof receiving said clevis pin, a nut welded on said one end of said lever arm; a point element aligned with said lever arm, said point element comprising a threaded bolt shank having a sharpened end, and a nut welded on said bolt shank intermediate its ends, the opposite end of said bolt shank having threaded engagement in said nut on said lever arm with said nut which is welded on said bolt shank tightened against said nut on said lever arm; an attachment having a square tubular shank receiving the other end of said base bar, said base bar and tubular shank having transverse holes receiving a bolt for mounting said attachment on said base bar in longitudinally adjusted positions; an abutment plate welded on the outer end of said tubular shank and extending perpendicular to said shank from one side thereof, and a rod element welded on the side of said abutment plate facing said lever arm and extending parallel with said clevis pin; said attachment being assembled on said base bar with said abutment plate projecting upward for pushing decking boards together, and said attachment being assembled on said base bar with said abutment plate projecting downward to engage said rod element under a tongue of a decking board for pulling the boards together.