Aug. 30, 1955 G. K. GEDDIS ET AL 2,716,288

STRAIGHT-EDGE DEVICE FOR APPLYING SHINGLES

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Fig. 1.

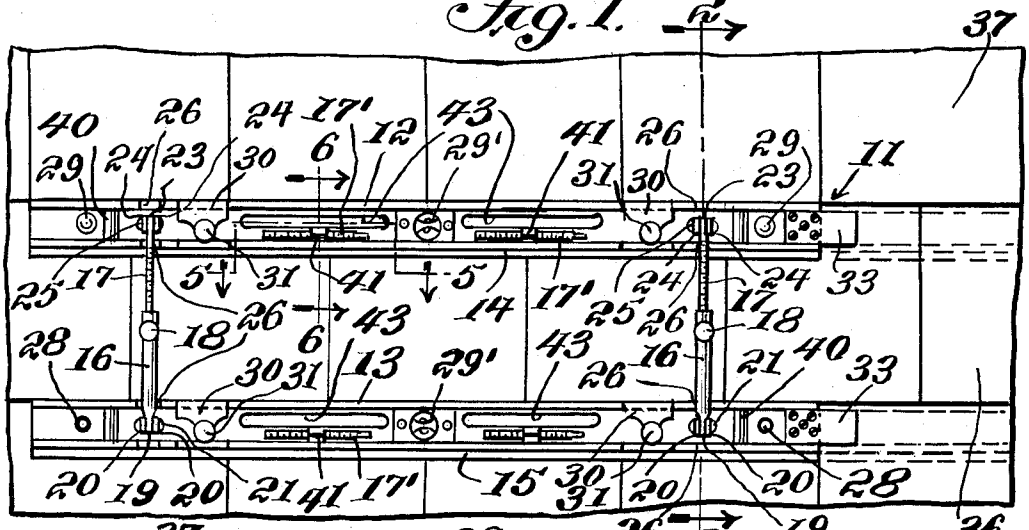


Fig. 2.

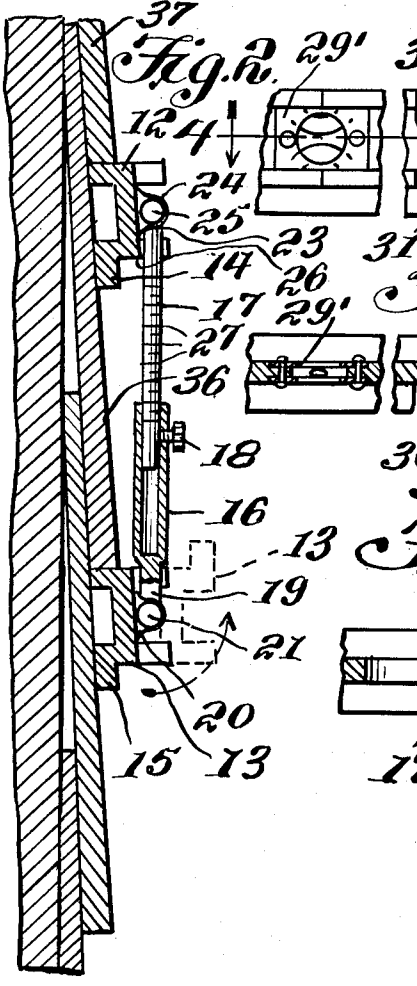


Fig. 3.

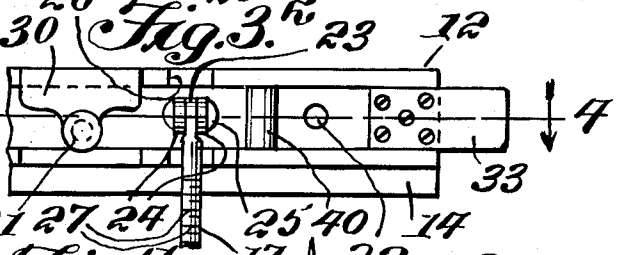


Fig. 4.

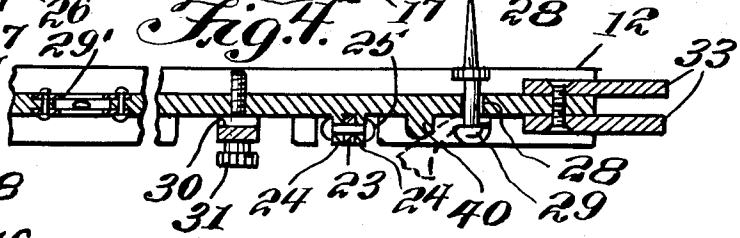


Fig. 5.

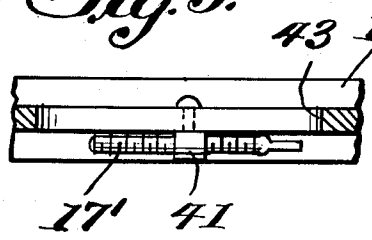
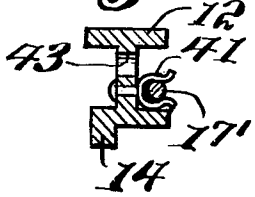


Fig. 6.



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Fig. 8.

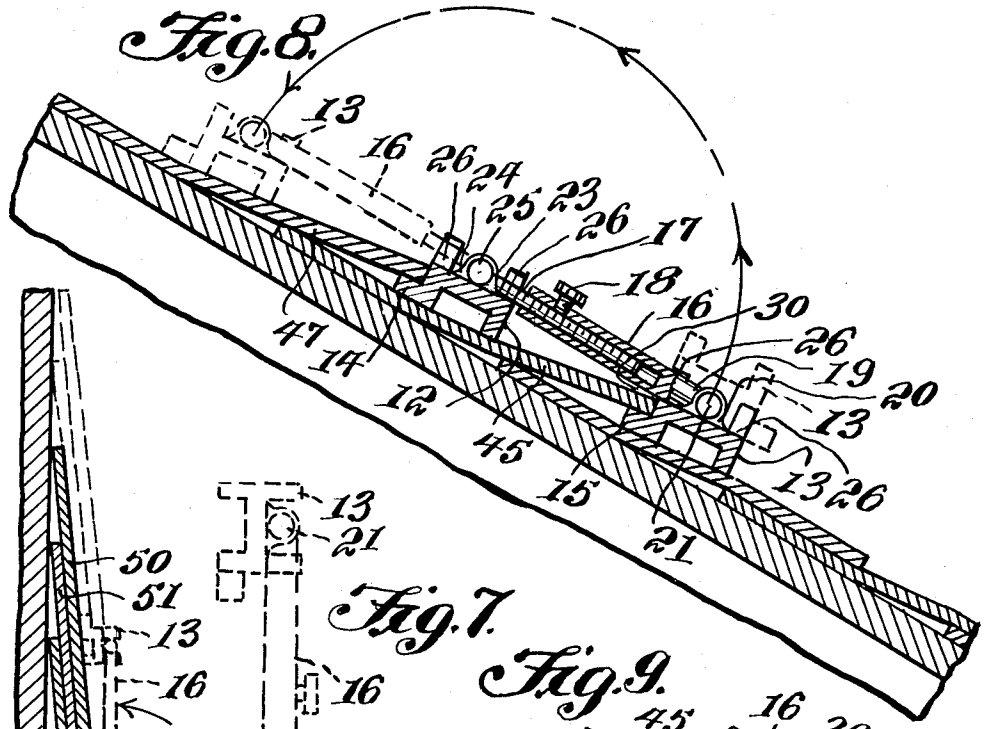


Fig. 7.

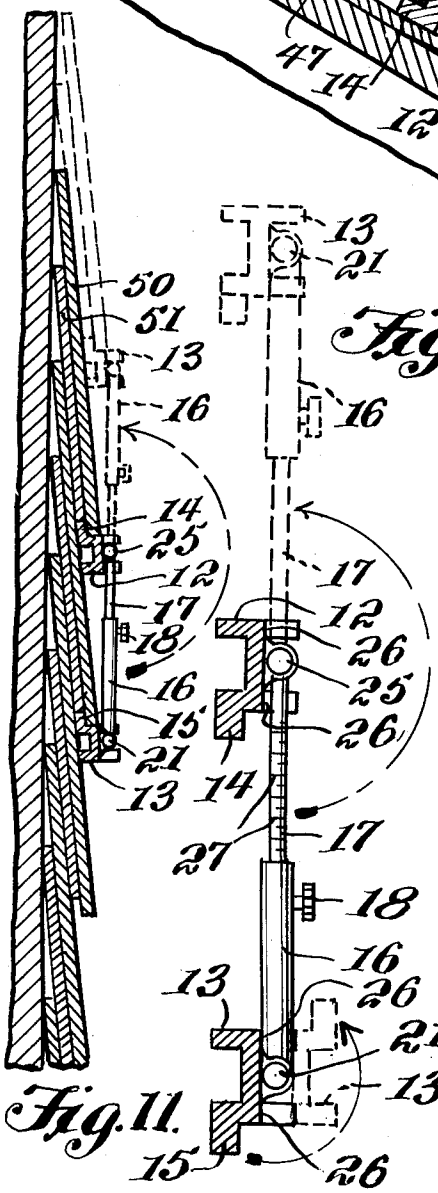


Fig. 9.

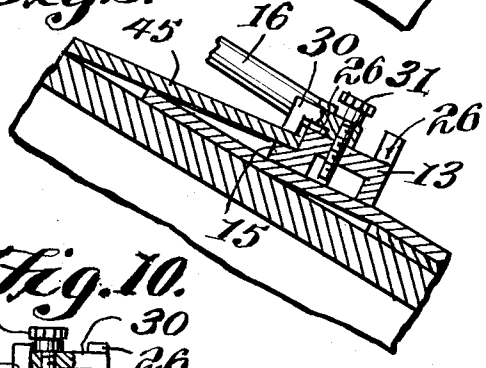


Fig. 10.

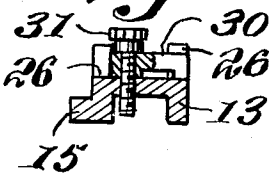


Fig. 11.

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STRAIGHT-EDGE DEVICE FOR APPLYING SHINGLES

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Application September 8, 1954, Serial No. 454,814

3 Claims. (Cl. 33—188)

This invention relates to builders' implements, and more particularly to an improved straight-edge device to be used in applying shingles to a building.

A main object of the invention is to provide a novel and improved implement for applying shingles, said implement being simple in construction, being easy to use, and providing faster and more accurate shingle application.

A further object of the invention is to provide an improved straight-edge device for laying shingles, said device involving inexpensive components, being rugged in construction, being easily adjustable in accordance with the widths of the shingle courses to be laid, and enabling shingles to be applied more accurately and uniformly and with less time and labor than in the usual methods heretofore employed.

Further objects and advantages of the invention will become apparent from the following description and claims, and from the accompanying drawings, wherein:

Figure 1 is an elevational view showing an improved straight-edge device according to the present invention mounted on a wall on which shingles are being applied.

Figure 2 is an enlarged transverse vertical cross sectional view taken on the line 2—2 of Figure 1.

Figure 3 is a fragmentary elevational detail view of one end portion of one of the bar members of the device of Figures 1 and 2.

Figure 4 is a cross sectional detail view taken on the line 4—4 of Figure 3.

Figure 5 is an enlarged cross sectional detail view taken on the line 5—5 of Figure 1.

Figure 6 is an enlarged transverse vertical cross sectional view taken on the line 6—6 of Figure 1.

Figure 7 is an enlarged transverse vertical cross sectional view taken through the device, said view being taken slightly to the left of the line 2—2 of Figure 1.

Figure 8 is an enlarged transverse vertical cross sectional view taken through the device and illustrating the use of the device in laying roof shingles.

Figure 9 is a transverse cross sectional detail view similar to Figure 8 and showing a fragmentary portion of one of the bar members of the device illustrating the manner in which the edge of a previously laid roof shingle is received on the marginal flange of and clamped to the bar member.

Figure 10 is a transverse vertical cross sectional detail view taken through one of the clamp members and the bar member of the device and illustrating the manner in which the clamp member is rotated to an inoperative position.

Figure 11 is a transverse vertical cross sectional view taken through the device and through a portion of the side wall of a building structure employing double shingles, illustrating the manner in which the device is employed in applying said double shingles to the side wall.

Referring to the drawings, and more particularly to Figures 1 to 6, the improved straight-edge device is designated generally at 11 and comprises a pair of straight bar members 12 and 13 of substantial length and being generally H-shaped in transverse cross section. The bar

members 12 and 13 are identical in length and in transverse cross sectional shape.

Each of the bar members is formed with an outwardly projecting marginal flange on its lower longitudinal edge, as shown respectively at 14 and 15 in Figure 1, the flanges 14 and 15 projecting from and being coextensive in length with the lower longitudinal edges of the bar members 12 and 13, as viewed in said Figure 1. The flanges 14 and 15 are substantially equal in thickness to the thickness of a shingle, as is apparent from Figure 2, and for a purpose to be presently described, when the arrangements of Figures 8 to 11 are discussed.

The bar members 12 and 13 are connected together in parallel relationship by respective connecting rods of adjustable length, each connecting rod comprising a sleeve element 16 pivotally connected to the bar member 13 and a rod element 17 pivotally connected to the bar member 12, the rod element 17 being telescopically received in the sleeve member 16 and being clamped thereto in adjusted position by a set screw 18 provided in the sleeve member 16. The sleeve member 16 has a flattened end portion 19 which is received between pivot lugs 20, 20 provided on the bar member 13 and which is pivotally connected thereto by a pivot pin 21, for pivotal rotation of the sleeve member 16 around an axis parallel to the bar member. Similarly, each rod 17 has a flattened end 23 received between lugs 24, 24 provided on the bar member 12 and pivotally connected thereto by a transverse pivot pin 25 for rotation around an axis parallel to the bar member 12. Thus, the bar member 13 is swingably connected to the bar member 12, the bar members being rotatable around their pivotal connections to the connecting rods on parallel axes and through angles of at least 180°.

The outwardly projecting flanges of the bar members 12 and 13 are notched, as shown in Fig. 2, to provide clearance for the connecting rod elements and to allow the bar members to be freely positioned with their inner edges engaged against the surface of a building wall or against shingles, for example, in the manner illustrated in Figure 2, wherein the device is shown as employed for applying single shingles to a vertical building wall.

The rod elements 17 are provided with inch scales 27, whereby the connecting rods may be adjusted to establish a desired spacing between the bar members 12 and 13, in accordance with the distance between successive courses of the shingles to be applied.

Each of the bar members is formed adjacent its opposite ends with openings 28 adapted to receive fastening pins 29 for holding the bar members in place on the structure being shingled when required.

Each of the bar members 12 and 13 is provided at its mid portion with a double spirit level 29' which is employed for leveling the bar members when said bar members are either in the position shown in Figure 1 or in inverted positions.

Designated at 30 are respective clamp members rotatably secured to the bar members inwardly adjacent their pivotal connections to the connecting link members 16, 17, the clamp members 30 being secured to the bar members by respective clamping screws 31 threadedly engaged through the web portions of the bar members, as shown in Figure 10. The clamp members 30 may be rotated to positions overlying the marginal flanges 14 and 15, for example as shown in Figure 9, or may be rotated to inoperative positions extending away from the flanges 14 and 15, as shown in Figure 10.

Secured to the ends of the respective bar members 12 and 13, are the respective pairs of parallel rectangular aligning plates 33, 33, said plates being coextensive in width with the web portions of the bar members and being adapted to receive the web portions of the bar

members of an auxiliary straight-edge device for extending the length of the device.

As above explained, the rod elements 17 are secured in the sleeve member 16 in positions in accordance with the distance between courses of the shingles to be applied.

In using the device to apply courses of single shingles against a vertical wall, as illustrated in Figures 1 and 2, one of the bar members, for example the bar member 12 of Figure 2 is first secured to a previously laid shingle, for example, the shingle 36, employing pins 29 through the apertures 28 of the bar member 12. The next course of shingles, comprising the shingles 37 may then be laid by applying the shingles 37 against the top edge of the bar member 12 and fastening the shingles, as illustrated in Figure 2. The lower bar member 13 is then rotated to the dotted view position of Figure 2, and then the lower bar member 13 and the connecting bar elements are rotated around the pivot pins 25 to place the bar member 13 above the bar member 12 in position for the next course of shingles. The bar member 13 is then fastened in place on the shingles 37 by employing pins 29, and the pins 29 are removed from the bar member 12, for example, by engaging a claw hammer with the head of the pins in the manner illustrated in Figure 4, the webs of the bar members being provided with transversely extending ribs 40 employed as fulcrum elements for the claw hammer. The above described process may then be repeated, employing the bar member 12 and 13 interchangeably and successively swinging said bar members upwardly over each other as the successive courses of shingles are laid.

Secured to the respective bar members 12 and 13 are spring clips 41 in which additional rod elements 17' may be carried, said rod elements being of different lengths, to extend the range of distances between the bar members 12 and 13, the auxiliary rod element 17' being, of course, interchangeable with the rod element 17.

The bar members 12 and 13 are formed in their web portions with a plurality of longitudinal slots 43 to reduce the weight of the bar members.

A plurality of devices may be employed, and, when it is desired to extend the effective length of the straight-edge, the web portions of the bar members being engaged between the positioning plate 33 of the preceding devices, to interlock the devices and to provide the desired extension of length thereof.

When laying roofing shingles, the straight-edge device is employed in the manner illustrated in Figures 8 and 9, wherein the flanges 14 and 15 are directed upwardly, and the shingles 45 to be laid have their lower edges disposed on the flanges and engaged against the upstanding wall element of the bar member. Instead of employing the fastening pins 29, the clamp members 30 are employed, said clamp members being rotated to overlie the lower marginal portions of the shingles, for example, the shingles 45 in Figures 8 and 9, and the screws 41 being then tightened to grip the marginal portions of the shingles 45, to thus secure the bar member concerned to the previously laid shingle 45. When thus secured, the other bar member, for example, the bar member 12 in Figure 8 may be swung to the position thereof shown in full line view in said figure and be employed as the straight-edge means for laying the next course of shingles, shown at 47. When the shingles 47 have been fastened to the room, the clamp members of the bar member 12 may be employed to secure the bar member 12 to the shingles 47, and the clamp members of the bar member 13 may be then released to allow said bar member 13 to be rotated through 180°, in the manner illustrated in Figure 8, to the dotted view position of said figure, whereupon the aforementioned process may be repeated.

When laying double shingles, for example the shingles

shown at 50 and 51 in Figure 11, the lower shingle 51 is engaged against the flange of the bar member and the upper shingle 50 is engaged against the upstanding wall of the bar member adjacent the flange, to provide the desired forward overlap of the upper shingle 50 with respect to the underlying shingle 51. For example, as shown in Figure 11, the edge of the flange 14 of the bar member 12 is employed as a straight-edge to position the underlying shingle 51 of the double shingle arrangement, whereas the uppermost shingle 50 has its edge overlapping the flange 14 and engaged with the upstanding adjacent wall portion of the bar member 12.

Obviously, in laying the double shingles of Figure 11, the pin members 29 may be employed as a fastening means for the bar members.

While a specific embodiment of an improved straight-edge device for applying shingles has been disclosed in the foregoing description, it will be understood that various modifications within the spirit of the invention may occur to those skilled in the art. Therefore, it is intended that no limitations be placed on the invention except as defined by the scope of the appended claims.

What is claimed is:

1. A straight-edge device for applying shingles comprising a first straight bar member, means for securing said bar member to a structure with the edge of said bar member disposed on a line along which a course of shingles is to be applied, a second straight bar member, a plurality of connecting rods pivotally secured at their ends to the respective bar members, said connecting rods being adjustable in length and connecting the bar members in parallel relationship, said bar members being rotatable around their pivotal connections to said rods on parallel axes and through angles of at least 180 degrees, and respective outwardly projecting marginal flanges on one longitudinal edge of each bar member, said flanges being substanitally equal in thickness.

2. A straight-edge device for applying shingles comprising a first straight bar member, a second straight bar member, a plurality of connecting rods pivotally secured at their ends to the respective bar members, said connecting rods being adjustable in length and connecting the bar members in parallel relationship, said bar members being rotatable around their pivotal connections to said rods on parallel axes and through angles of at least 180 degrees, respective outwardly projecting marginal flanges on one longitudinal edge of each bar member, said flanges being substantially equal in thickness, and a plurality of clamp members pivotally mounted on each bar member and being swingable to positions overlying the respective marginal flanges.

3. A straight-edge device for applying shingles comprising a first straight bar member, a second straight bar member, a plurality of connecting rods pivotally secured at their ends to the respective bar members, said connecting rods being adjustable in length and connecting the bar members in parallel relationship, said bar members being rotatable around their pivotal connections to said rods on parallel axes and through angles of at least 180 degrees, respective outwardly projecting marginal flanges on one longitudinal edge of each bar member, said flanges being substantially equal in thickness, a plurality of clamp members pivotally mounted on each bar member and being swingable to positions overlying the respective marginal flanges thereof, and a spirit level mounted on each bar member.

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