Sept. 17, 1957 B. A. MIELE 2,806,642

LADDER OFFSET APPARATUS

Filed July 13, 1955 2 Sheets-Sheet 1

Fig. 1.

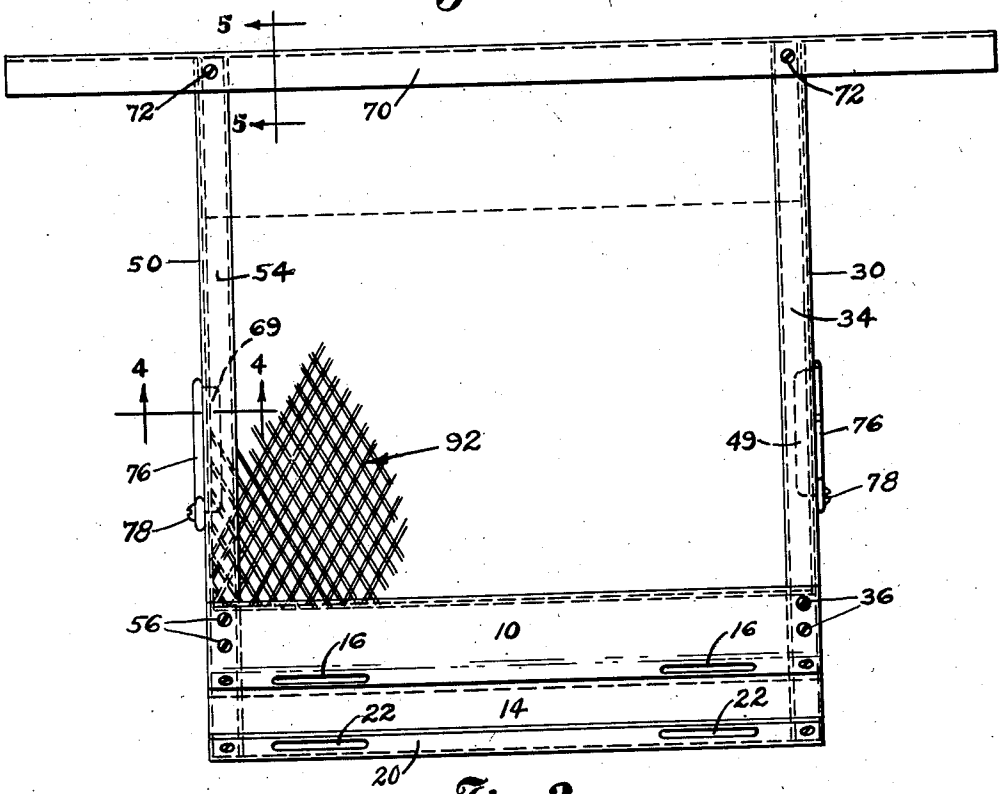
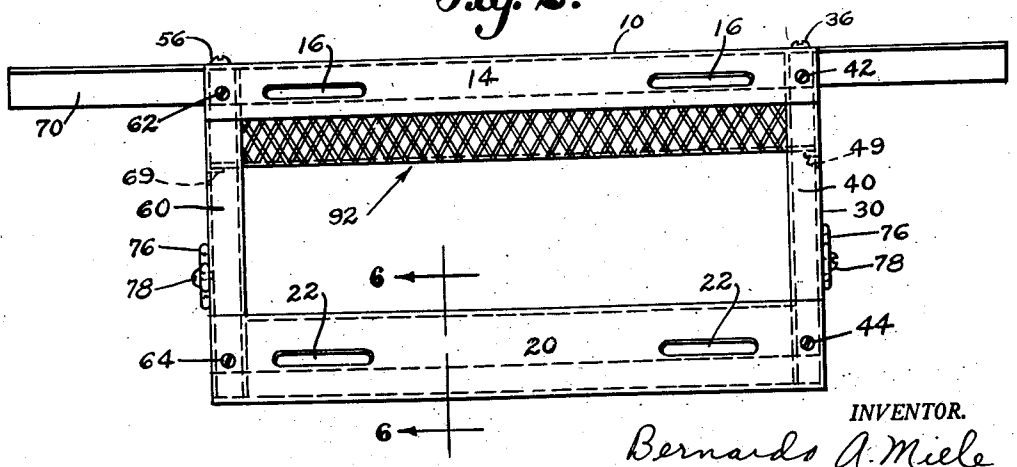


Fig. 2.



INVENTOR.
Bernard A. Miele
BY Harold E. Cole
attorney

Sept. 17, 1957 B. A. MIELE 2,806,642

LADDER OFFSET APPARATUS

Filed July 13, 1955 2 Sheets-Sheet 2

Fig. 3.

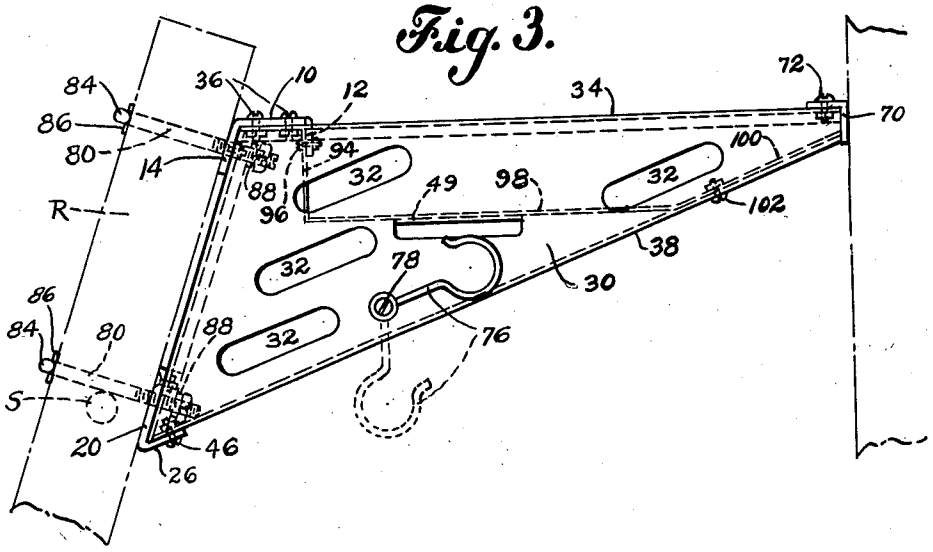


Fig. 4.

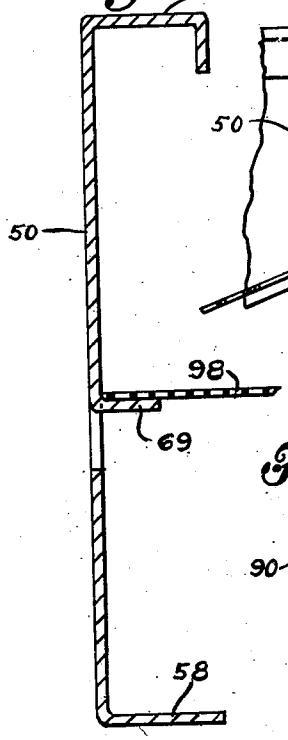


Fig. 5.

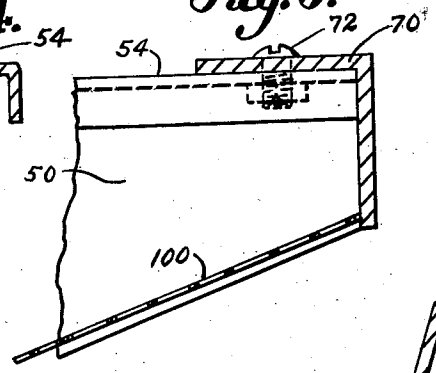


Fig. 6.

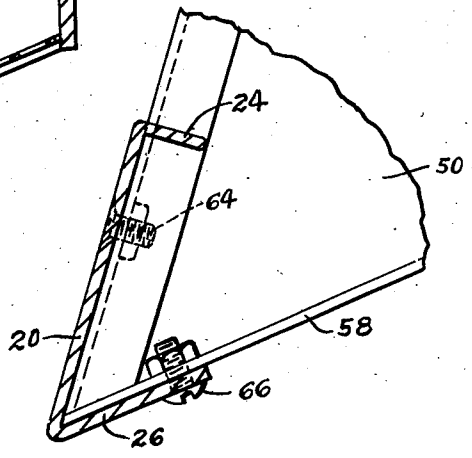
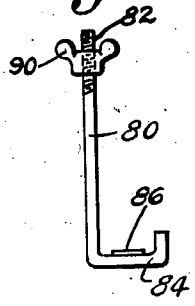


Fig. 7.



INVENTOR.
Bernard A. Miele
BY Harold E. Cole
Attorney

United States Patent Office 2,806,642 Patented Sept. 17, 1957

2,806,642

LADDER OFFSET APPARATUS

Bernardo A. Miele, Cambridge, Mass.

Application July 13, 1955, Serial No. 521,742

3 Claims. (Cl. 228—60)

This invention relates to ladder offset apparatus for attachment to an ordinary ladder.

Reference is made to my co-pending patent application, Serial No. 413,008, filing date March 1, 1954.

One object of my invention is to provide improved ladder offset apparatus, whereby the attachment to, and detachment from, a ladder can be conveniently made, and likewise adjustment of said apparatus to different size ladders can be simply effected.

Another object is to provide attaching means and side supports, of novel construction, and cooperative arrangement, whereby said apparatus occupies the minimum amount of space, is relatively light in weight, and enables a person using it to work with improved efficiency.

A further object is to provide such parts that can be manufactured in large quantities at relatively low cost, and which are so shaped and interfitted that assembly is easily and quickly effected.

The foregoing and other objects which will appear as the nature of the invention is better understood, may be accomplished by a construction, combination and arrangement of parts such as is disclosed by the drawings. The nature of the invention is such as to render it susceptible to various changes and modifications, and therefore, I am not to be limited to the construction disclosed by the drawings nor to the particular parts described in the specification; but am entitled to all such changes therefrom as fall within the scope of my claims.

In the drawings:

Fig. 1 is a top plan view of my apparatus.

Fig. 2 is a front elevational view thereof.

Fig. 3 is a side elevational view thereof shown attached to a ladder side rail, with the rest bar resting upon the side of a building.

Fig. 4 is an enlarged, sectional view taken on the line 4—4 of Fig. 1.

Fig. 5 is an enlarged, sectional view taken on the line 5—5 of Fig. 1.

Fig. 6 is an enlarged, sectional view taken on the line 6—6 of Fig. 2.

Fig. 7 is a side elevational view of my attaching clamp.

As illustrated, the main frame of my apparatus has an upper attaching member at the front having a flat top 10 from which a retaining flange 12 extends downwardly at the rear, while at the front edge of said top a front 14 extends therefrom diagonally downward and forward, so that said top 10 and front 14 define an obtuse angle, in position of use. There are two laterally extending slots 16 through said front 14 at opposite side portions thereof, as shown, although a single, longer slot would serve the purpose.

Said main frame has a lower attaching member spaced vertically, in position of use, from said upper attaching member and having a front 20 with two laterally extending slots 22 therethrough at opposite side portions thereof. Extending rearwardly from the upper edge of said front 20 is a short flange 24 while at the lower edge is a supporting member 26 extending diagonally upward and rearward and that defines an acute angle with said front 20.

A right side support 30 has a number of holes 32 therethrough for the purpose of making this part lighter in weight. This support 30 is of generally triangular shape, having a top portion 34 extending approximately horizontal in position of use, as shown in said Fig. 3, while a bottom portion 38 extends diagonally upward and rearward, resulting in said support tapering considerably in width from front to rear. Bolts 36 fasten said top portion 34 to said flat top 10 of the upper attaching member. Said right side support 30 also has a front portion 40 extending between said upper and lower attaching members, and a bolt 42 fastens it to said attaching member front 14, and also a bolt 44 attaches the lower attaching member front 20 to said front portion 40. A bolt 46 attaches said lower attaching member diagonal support 26 to said right side support bottom portion 38. Extending laterally inward from a said hole 32 is a shelf 49.

A left side support 50 has a number of holes therethrough to lighten its weight. This support 50 is also of generally triangular shape, having a top portion 54 extending approximately horizontal in position of use, while a bottom portion 58 extends diagonally upward and rearward, resulting in a considerable taper in width from front to rear. Bolts 56 fasten said top portion 54 to said flat top 10. Said left side support also has a front portion 60 extending between said upper and lower attaching members and a bolt 62 fastens it to said attaching member front 14. A bolt 64 attaches the lower attaching member front 20 to said front portion 60, also a bolt 66 attaches said lower attaching member diagonal support 26 to said left side support bottom portion 58. Extending laterally inward from a said hole 32 is a shelf 69.

At the rear ends of said side supports 30 and 50 is a rest bar 70 that, in cross section, defines a right angle. It is fastened by bolts 72 that extend through it into said side support tops 34 and 54. This rest bar 70 extends laterally at both sides well beyond said side supports so that when one works in front of a window, for instance, the rest bar will rest on side portions of the house laterally beyond the window.

Hooks 76 are movably attached to each said side support by bolts 78, being supplied to hold receptacles with handles, such as paint cans.

To attach my apparatus to a ladder I provide J-shaped clamps shown in said Fig. 7, each having a shank 80 that is screw-threaded as at 82 at its free end. These shanks slidably extend through said adjusting slots 16 and 22. At the hook-end 84 of each said shank 80 a stop disc 86 is attached to keep said clamp from slipping out of a said slot. At the screw-threaded end 82 of the clamp is a washer 88 and an interiorly-screw-threaded wing nut 90.

Said clamps are slid in said slots 16 and 22 until they are positioned to be placed over the side rails R of a ladder and then said wing nuts 90 are tightened to hold my apparatus firmly to the ladder rails R. It is desirable to have the shanks 80 of two of the clamps, located at opposite sides, rest on the rung or step S of a ladder to provide additional support.

I preferably provide a receptacle or basket 92 with my apparatus for convenience in holding tools and other articles within easy reach of the workman. This basket 92 is made of open mesh material, as shown, and has an upwardly extending portion 94 at the front which is bolted as at 96 to said retaining flange 12 of said upper attaching member. This basket has an intermediate portion 98 extending rearwardly from said portion 94, and part of it rests on said side support shelves 49 and 69. A rear portion 100 of said basket extends upwardly towards said rest bar 70, resting on said side support bot-

tom portions 38 and 58, and being bolted as at 102 to the latter.

What I claim is:

1. Ladder offset apparatus comprising a main frame embodying an upper attaching member embodying a front and having two slots therethrough extending laterally, and embodying a top extending rearwardly from said front and a retaining flange extending downwardly from the rear thereof, a lower attaching member spaced vertically from said upper attaching member in position of use embodying a front having two slots therethrough extending laterally and embodying a supporting member extending diagonally rearward and upward, a right side support attached to both said attaching members extending rearwardly thereof embodying a bottom extending inwardly and a front portion extending from and between said upper and lower attaching members, means fastening said front portion to both said attaching members, a left side support attached to both said attaching members extending rearwardly thereof embodying a bottom extending inwardly and a front portion extending from and between both said attaching members, means fastening said latter front portion to both said attaching members, means attaching said side supports to said supporting member, a basket between said side supports, means attaching said basket to said retaining flange, and means attaching said basket to said side support bottoms.

2. Ladder offset apparatus comprising a main frame embodying an upper attaching member embodying a front extending diagonally downward and forward in position of use and having two slots therethrough extending laterally and embodying a top extending rearwardly from said front and a retaining flange extending downwardly from the rear thereof, a lower attaching member spaced vertically from said upper attaching member in position of use embodying a front extending diagonally downward and forward in position of use and having two slots therethrough extending laterally and embodying a supporting member extending diagonally rearward and upward, a right side support attached to both said attaching members extending and tapering in width rearwardly thereof embodying a bottom extending inwardly and a front portion extending from and between said upper and lower attaching members, means fastening said front portion to both said attaching members, a left side support attached to both said attaching members extending and tapering in width rearwardly thereof embodying a bottom extending inwardly and a front portion extending from and between both said attaching members, means fastening said latter front portion to both said attaching members, means attaching said side supports to said supporting member, a basket between said side supports, means attaching said basket to said retaining flange, and means attaching said basket to said side support bottoms.

3. Ladder offset apparatus comprising a main frame embodying an upper attaching member embodying a front extending diagonally downward and forward in position of use and having two slots therethrough extending laterally, and embodying a top extending rearwardly from said front and a retaining flange extending downwardly from the rear thereof, a lower attaching member spaced vertically from said upper attaching member in position of use embodying a front extending diagonally downward and forward in position of use and having two slots therethrough extending laterally and embodying a supporting member extending diagonally rearward and upward, a right side support attached to both said attaching members extending and tapering in width rearwardly thereof embodying a bottom extending inwardly and a front portion extending from and between said upper and lower attaching members, means fastening said front portion to both said attaching member fronts, a left side support attached to both said attaching members extending and tapering in width rearwardly thereof embodying a bottom extending inwardly and a front portion extending from and between both said attaching members, means fastening said latter front portion to both said attaching members, means attaching said side supports to said supporting member, a basket between said side supports, means attaching said basket to said retaining flange, means attaching said basket to said side support bottoms, and a rest bar attached to said side supports at rear portions thereof and extending laterally beyond said main frame in opposite directions.

References Cited in the file of this patent

UNITED STATES PATENTS

886,737	Taylor	May 5, 1908
1,415,699	Porter	May 9, 1922
1,435,988	Siemann	Nov. 21, 1922
2,522,821	Hansen	Sept. 19, 1950
2,597,902	Roketa	May 27, 1952
2,680,554	Dakin	June 8, 1954

FOREIGN PATENTS

268,709	Great Britain	Apr. 7, 1927
125,682	Switzerland	May 1, 1928