Nov. 16, 1954 J. T. GARRIS 2,694,595

BLOCK LAYING TOOL

Filed Sept. 15, 1950 2 Sheets-Sheet 1

Fig. 1

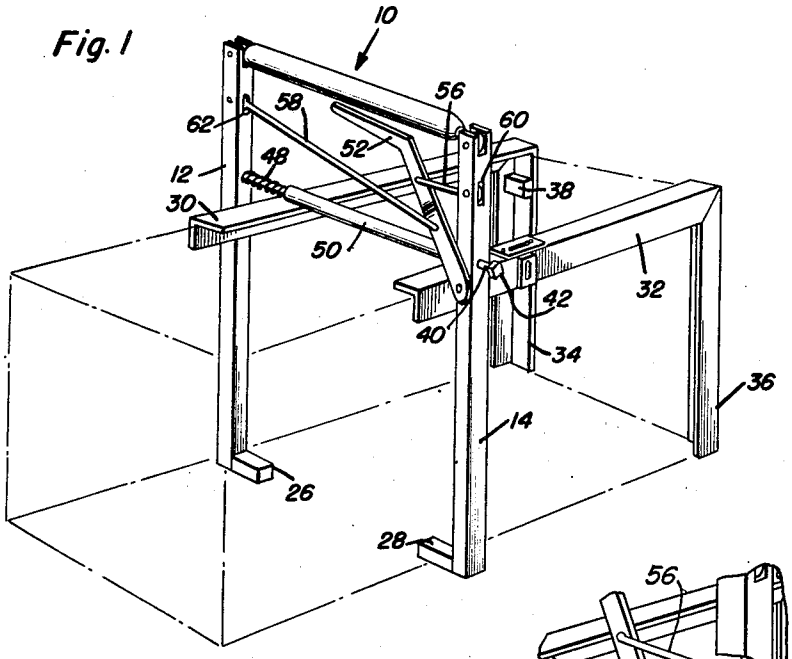


Fig. 2

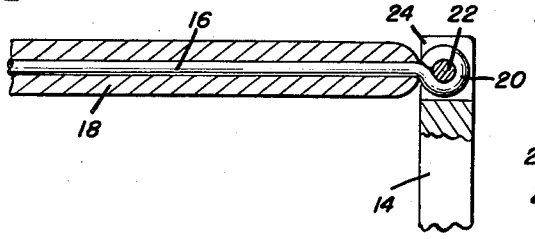


Fig. 10

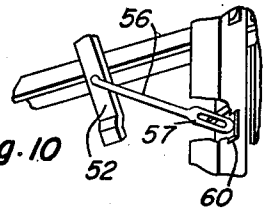


Fig. 3

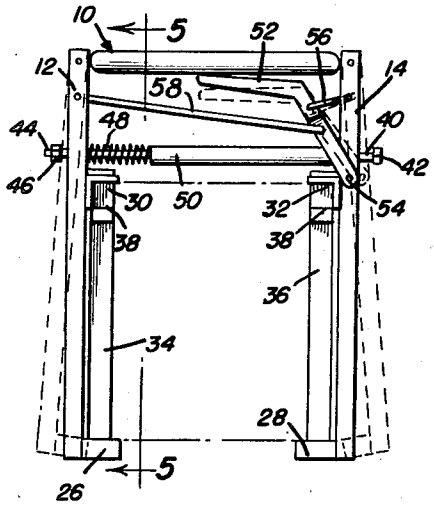
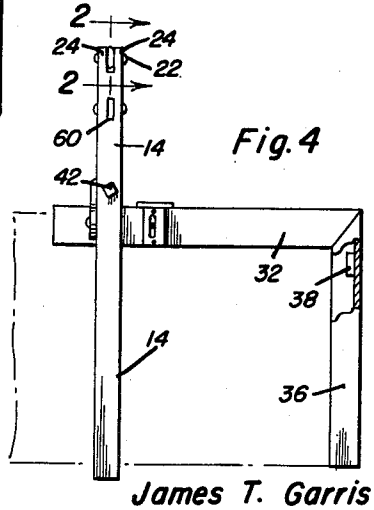


Fig. 4



James T. Garris

INVENTOR.

BY Clarence A. O'Brien and Harvey B. Jackson

Attorneys

Nov. 16, 1954 J. T. GARRIS 2,694,595

BLOCK LAYING TOOL

Filed Sept. 15, 1950 2 Sheets-Sheet 2

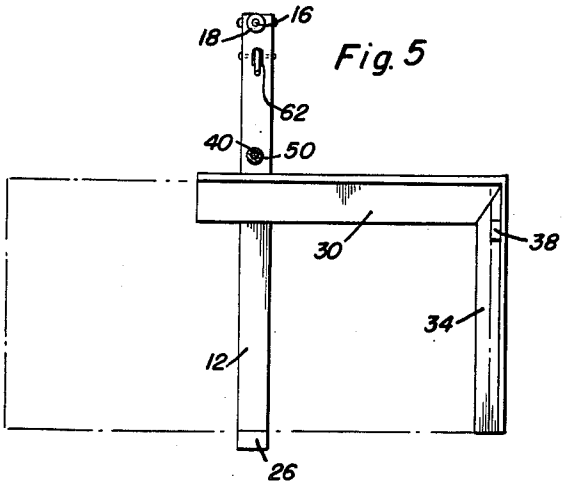


Fig. 5

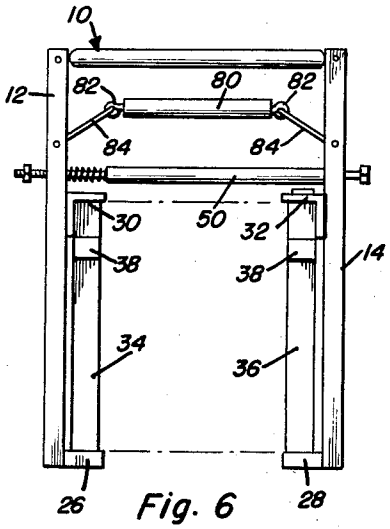


Fig. 6

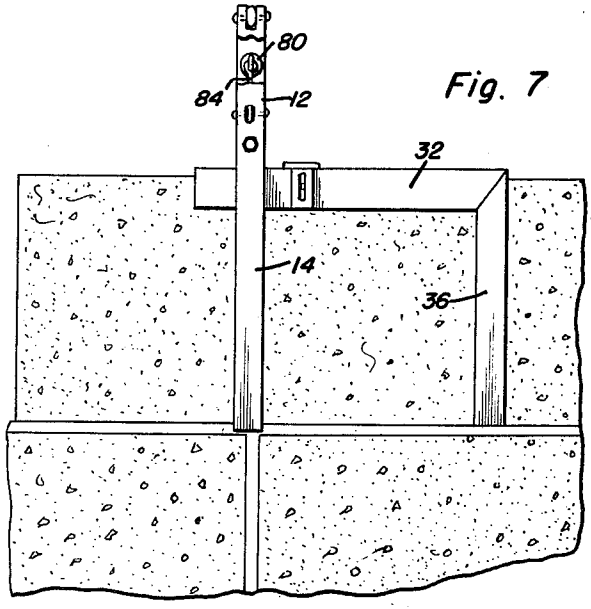


Fig. 7

Fig. 8

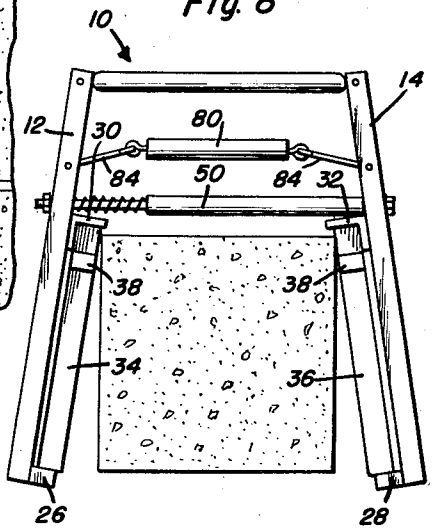
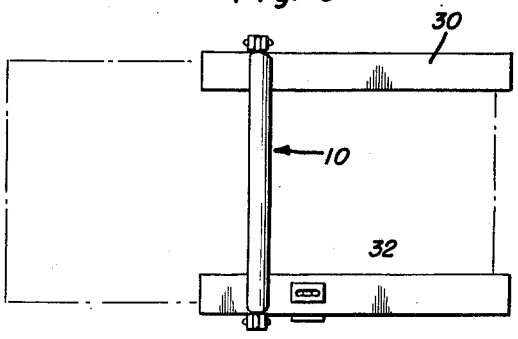


Fig. 9



James T. Garris
INVENTOR.

BY Clarence A. O'Brien and Harvey B. Jacobson
Attorneys

United States Patent Office 2,694,595 Patented Nov. 16, 1954

2,694,595

BLOCK LAYING TOOL

James T. Garris, Charlotte, N. C.

Application September 15, 1950, Serial No. 185,031

2 Claims. (Cl. 294—16)

This invention comprises novel and useful improvements in a block laying tool and more specifically pertains to block laying tongs for efficaciously and with celerity and certainty handling and placing a block and holding the same in properly spaced relation in a masonry construction to facilitate the effecting of the requisite mortar joints between the adjacent blocks.

The primary object of this invention is to provide a block laying tongs which shall be of simple and easily manipulated construction; shall be of relatively light weight but quite sturdy in use; may be quickly applied to a block and will have an improved gripping action upon the block for effectively handling and manipulating the same; shall be capable of positioning a block in a masonry construction in predetermined spaced relation to the adjacent blocks to facilitate the effecting of the requisite mortar joint therebetween; and may be readily withdrawn from the block after the latter has been cemented or mortared into the masonry construction.

These, together with various ancillary features and objects of the invention, which will later become apparent as the following description proceeds, are attained by the present invention, a preferred embodiment of which has been illustrated, by way of example only, in the accompanying drawings, wherein:

Figure 1 is a perspective view illustrating one suitable construction of block laying tongs incorporating therein the principles of this invention and illustrated in gripping engagement with a block for handling the same;

Figure 2 is a fragmentary vertical longitudinal sectional view taken substantially on the plane indicated by the section line 2—2 of Figure 4 and illustrating certain structural details of the handle and its engagement with the jaws of the tongs;

Figure 3 is an end elevational view of the tongs of Figure 1, alternative positions of the parts being shown in dotted lines therein;

Figure 4 is a side elevational view of the tongs of Figure 1, a part thereof being broken away;

Figure 5 is a vertical sectional view through the tongs of Figure 1 showing one of the jaws of the same from the interior of the tongs;

Figure 6 is an end elevational view of a modified construction of tongs;

Figure 7 is a side elevational view, parts being broken away, of the tongs of Figure 6 disclosed in operative position for manipulating a block in a masonry construction;

Figure 8 is an end elevational view of the device of Figure 7 showing the position of the tong jaws for releasing a masonry block;

Figure 9 is a top plan view of the tongs of Figures 6–8; and,

Figure 10 is an enlarged perspective detail view illustrating the means used to support the lever 52.

Referring now more specifically to the accompanying drawings, wherein like numerals designate similar parts throughout the various views, attention is directed first to the embodiment of the invention illustrated in Figures 1–5 and wherein there is disclosed a block-laying and handling tongs comprising a handle indicated generally by the numeral 10, and from the ends of which are provided a pair of pivotal depending jaws 12 and 14.

Referring more specifically to Figure 2, it will be seen that the handle 10 includes a metallic rod 16 upon which is mounted a roller or sleeve 18 of any desired material, the rod having at its ends eye portions 20 which are pivotally engaged by pivot pins 22 disposed between the bifurcations 24 of the upper ends of the jaws 12 and 14. It will thus be apparent that the two jaws 12 and 14 depend from the ends of the handle and are pivotally connected thereto.

The jaw members 12 and 14 may be of any desired material and construction, and preferably are in the form of metallic bars of substantially square or rectangular cross section, these bars having their lower ends inturned as at 26 and 28 to provide hooks which are disposed perpendicularly to the jaws and are inturned toward each other. The hooks 26 and 28 not only serve to engage the under surface of a masonry block of any desired character, such as that indicated in dotted lines in Figure 1, whereby the block may be lifted, but also serve to space the lower surface of the block from the adjacent portion of masonry and thus maintain the predetermined spacing therebetween which enables the establishment of a predetermined mortar joint between the courses of masonry.

The jaw members 12 and 14 are provided with laterally extending angle iron members 30 and 32 which are welded or otherwise rigidly secured to the jaws and which extend horizontally and laterally from the jaws when the jaws are in a vertical position. These angle iron members are adapted to engage or clamp upon a masonry block along the upper horizontal edges of the same as shown in Figure 1. At their outer ends, the lateral angle iron members 30 and 32 have integral depending angle iron members 34 and 36 which are similarly adapted to clamp and embrace two of the vertical end edges of the block being handled by the tongs.

However, upon their inner surfaces, the depending angle iron members 34 and 36 are provided with spacer means in the form of blocks 38, which thus function to space the block being handled by the tongs from the next adjacent block in a course of masonry when the tongs are pressed against that block, to thus insure a predetermined space for receiving the material to form the mortar joint of predetermined size.

A connecting means is provided to facilitate the pivoting movement of the jaws. This connecting means consists of a bolt 40 having a headed extremity 42 and a screw-threaded extremity 44 provided with an adjusting nut 46. This bolt extends through suitable slots in the two jaw members 12 and 14 above the lateral angle iron members 30 and 32.

A compression spring 48 and a sleeve member 50 are received upon the bolt 40 between the jaws 12 and 14. The compression spring urges the jaws away from each other, thus yieldingly biasing the jaws into their open position. The nut 46 upon the screw-threaded portion 44 serves to provide, in conjunction with the head 42, an adjustable stop means to prevent or limit the opening movement of the jaws.

An actuating means is provided for positively clamping the jaws into engagement upon a block. This actuating means includes a lever 52 having its lower end pivoted, as at 54, to the jaw 14, the lever being thus disposed immediately below the handle 10 for convenient manipulation by the user when the latter is holding the handle.

A pair of connecting links 56 and 58 are terminally connected to the lever 52 in spaced relation, and at their other ends are pivotally connected in slots 60 and 62 of the jaws 14 and 12. The link 56 has the end pivotally connected in the slot 60 provided with a loop 57.

It will thus be apparent that when the lever is pivoted to its upward or full line position shown in Figure 3, the jaws will be clamped together upon a block whereby the latter may be conveniently manipulated and placed in position; while when the lever is lowered in the dotted line position shown in Figure 3, the clamping action will be released and the jaws, assisted by the spring 48, will move into their open dotted line position, releasing the block.

Referring now to the embodiment of the invention disclosed in Figures 6–9, it will be seen that a similar construction of tongs is provided having a slightly modified actuating means. In this arrangement, the tongs include the handle member 10, the jaw members 12

and **14** having the hooks **26** and **28** together with the rigid lateral angle iron members **30** and **32**, the latter having, at their outer extremities, the depending angle iron members **34** and **36**, each with the spacing means or blocks **38**, as in the preceding embodiment. As so far described, the tongs are of identical construction. However, in place of the connecting means and of the jaw actuating means previously described, there is provided a combined mechanism consisting of a horizontally extending handle **80** having rigidly attached eyes **82** at its opposite extremities, and a pair of connecting links **84** are pivotally connected to these eyes and to the jaw members **12** and **14**.

The handle **80** is disposed in parallel relation to and beneath the handle **10** but in close proximity thereto, so that when the user grasps the two handles **10** and **80** in one hand and squeezes the same together, the relative movement of the handle **80** towards the handle **10** will, by virtue of the links **84**, cause the pivoting movement of the jaws **12** and **14** towards each other, thus causing the tongs to clamp upon the sides, below the bottom edges, and to engage the top and end edges of the block in the same manner as in the preceding embodiment.

Upon releasing this clamping action, or by positively separating the handle **80** from the handle **10** by pressing the former downwardly with respect to the latter, the jaws will be spread apart.

Thus, in both of the embodiments, various conventional blocks may be gripped by the tongs, may be placed in position in a masonry course, will be held in properly spaced relation to the adjacent blocks to permit the formation of the desired mortar joints, whereupon the tongs may be readily removed without disturbing the position of the block.

From the foregoing, it is thought that the construction and operation of the device, together with its many advantages, will be readily apparent and further explanation is believed to be unnecessary. However, since numerous modifications and changes will readily occur to those skilled in the art after a consideration of the foregoing specification and accompanying drawings, it is not desired to limit the invention to the exact construction shown and described, but all suitable modifications and equivalents may be resorted to, falling within the scope of the appended claims.

Having thus disclosed and described the invention, what is claimed as new is as follows:

1. A block laying tongs comprising a handle, a pair of jaws pivotally depending from said handle, said jaws having hooks at their lower ends for engagement beneath a block, means on said jaws for engaging the top and vertical edges of a block, a shaft extending through a first of said jaws and engaging the other of said jaws, resilient means about said shaft biasing said jaws and urging said jaws apart, said shaft having a threaded portion means threadedly engaged on said shaft, said last recited means engaging said first jaw to adjustably limit the outward movement of said jaws and to adjust the compressive force on said resilient means, a lever pivoted to said other jaw, links pivoted to said lever and to said jaws for causing clamping movement of said jaws on a block against the compressive force exerted by said resilient means.

2. A block laying tongs comprising a handle, a pair of jaws pivotally depending from said handle, said jaws having hooks at their lower ends for engagement beneath a block, means on said jaws for engaging the top and vertical edges of a block, a shaft extending through a first of said jaws and engaging the other of said jaws, resilient means about said shaft biasing said jaws and urging said jaws apart, said shaft having a threaded portion means threadedly engaged on said shaft, said last recited means engaging said first jaw to adjustably limit the outward movement of said jaws and to adjust the compressive force on said resilient means, a lever pivoted to said other jaw, links pivoted to said lever and to said jaws for causing clamping movement of said jaws on a block against the compressive force exerted by said resilient means, said first recited means comprising lateral angle iron members rigidly secured to said jaws for engaging the upper edges of a block when said hooks engage the lower edges of a block, depending angle iron members secured to the ends of said lateral angle iron members for gripping the vertical edges of a block, and spacer means on said depending angle iron members.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
69,326	Dixon et al.	Oct. 1, 1867
884,434	Walgamott	Apr. 14, 1908
1,037,712	Alfvegren	Sept. 3, 1912
1,135,992	Cahill	Apr. 20, 1915
1,573,263	Madden	Feb. 16, 1926

FOREIGN PATENTS

Number	Country	Date
10,617	Great Britain	1913
502,270	Germany	Dec. 3, 1927