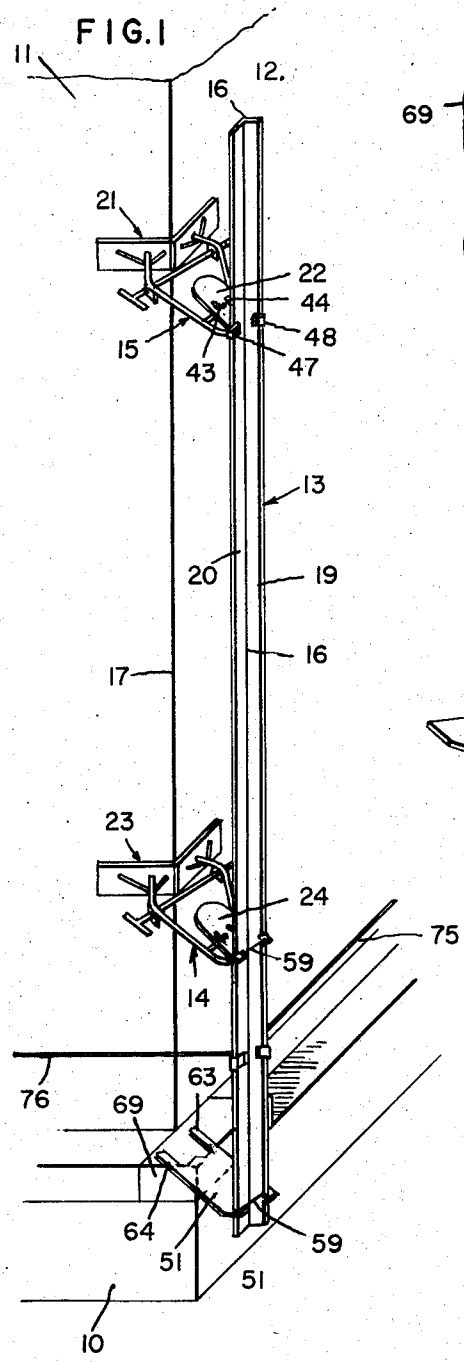
Oct. 14, 1958 G. L. ANDREWS 2,855,681

BRICKLAYING GUIDE

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FIG. 1



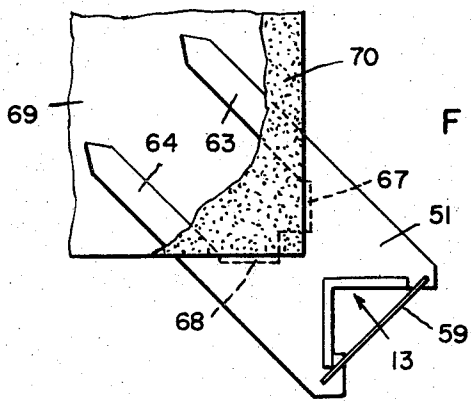


FIG. 5

FIG. 6

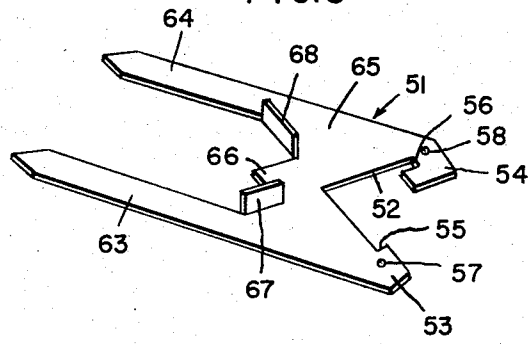
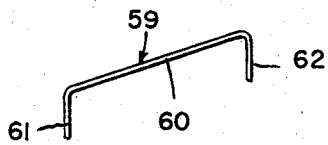


FIG. 7



INVENTOR.
George L. Andrews
BY Shoemaker & Mattare
ATTYS

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FIG.2

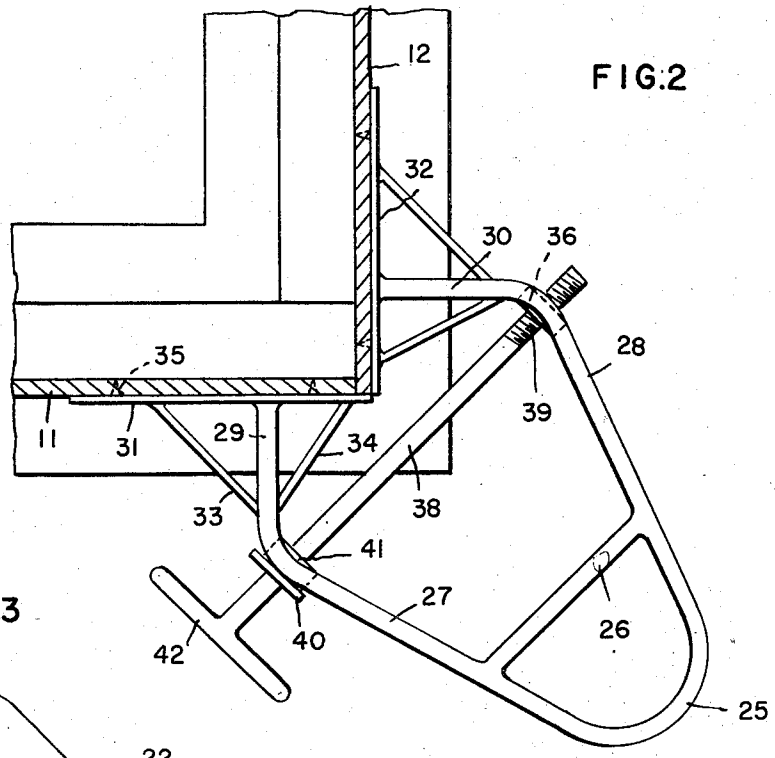
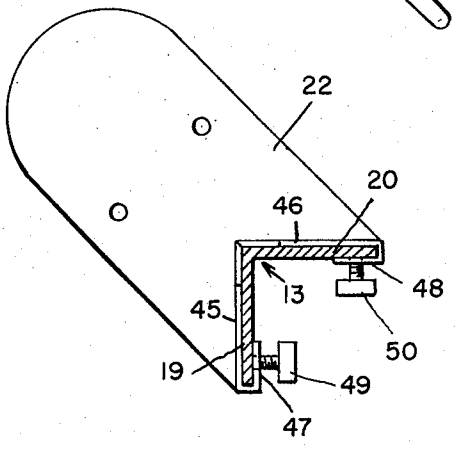


FIG.3



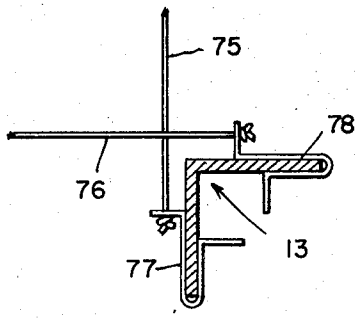


FIG.4

INVENTOR.
George L. Andrews
BY Shoemaker & Mattare
ATTYS

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2,855,681

BRICKLAYING GUIDE

George L. Andrews, Hampton, Va.

Application April 10, 1957, Serial No. 652,000

10 Claims. (Cl. 33—85)

This invention relates generally to a specialized tool for bricklayers and pertains more particularly to a tool assembly for providing a corner guide permitting the corner to be laid up entirely plumb and evenly and in a great deal less time than is ordinarily required.

In the art of bricklaying, it is well recognized that one of the most difficult tasks is to properly and quickly lay up a corner inasmuch as the bricks must be very carefully and evenly placed if the intersecting wall portions are to be disposed at the right angle to each other, usually in right angular relationship, and such that the arrises of the various corner bricks are in precise vertical alignment and are disposed in plumb relationship so as to effect a neat appearing and structurally efficient corner.

It is, therefore, a primary object of this invention to provide a guide assembly usable in association with an unfinished building structure to permit a brick veneer to be laid up on the outside thereof and to permit the corners to be accurately and precisely laid up, while at the same time the tool assembly is constructed in such a manner as to permit its being quickly and easily assembled and without interfering with the laying up of the bricks.

It is another object of this invention to provide an improved guide assembly for bricklayers incorporating clamp means adapted to be associated with the corner wall structure over which a brick veneer is adapted to be laid and wherein a common piece of structurally light angle iron is utilized to effect a plumb line of constant reference for the bricklayer as the corner is laid up and wherein the guide utilizes bracket elements incorporated into the corner structure itself and later removable therefrom which effect fixed reference points so as to retain the angle or guide in proper relation to the corner and permitting its removal and replacement at will so that the same will not interfere with the construction of scaffolding and the like and which will, in all respects, most advantageously expedite the laying up of a corner.

With the above and other objects in view, the invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings and pointed out in the claims hereto appended, it being understood that various changes in the form, proportions, and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings:

Fig. 1 is a perspective view showing a corner portion of a building structure prior to the laying up of a brick veneer in relation thereto and illustrating the guide tool assemblage in operative association therewith;

Fig. 2 is an enlarged section in a horizontal plane through the corner of the building wall and looking down upon the tool assemblage;

Fig. 3 is an enlarged horizontal partial section taken through the guide element in a plane substantially perpendicular thereto just below and looking toward the top bracket;

Fig. 4 is an enlarged sectional view taken through the guide element and illustrating the manner in which plumb lines may be associated therewith;

Fig. 5 is a plan view showing the manner in which one of the special bracket assemblages may be associated with the brick work;

Fig. 6 is a perspective view of one of the brackets, such as is shown in Fig. 5, but showing the same in upside down position; and

Fig. 7 is a perspective view of one of the wire retaining clips associated with the various brackets.

Referring at this time more particularly to Fig. 1, the reference numeral **10** indicates generally the foundation portion of a building structure and the reference numerals **11** and **12** respectively indicate meeting right angularly disposed wall portions defining a corner of the building structure and illustrating the construction of the same before the brick veneer is laid up in facing relation thereto.

For accurately defining a fixed reference line for the vertical corner line of the veneer, a guide element indicated generally by the reference character **13** is employed and in association therewith suitable support assemblies **14** and **15** serving to hold the same in place and with the inner vertical edge **16** of the guide element disposed in perfectly plumb relationship and opposed to the corner edge **17** of the walls **11** and **12** so that the veneer may be laid up accurately and quickly and with a continuing and fixed reference line.

The guide means **13** is preferably constructed of a length of angle section having right angularly disposed leg portions **19** and **20** and with the guide means so associated with the building structure that the outer face of the leg **19** is disposed parallel to the wall portion **11** and the outer surface of the leg **20** being disposed parallel with the outer surface of the wall **12**.

The upper portion of the guide means is supported by the assembly **15** which includes a clamp element **21** and an associated bracket **22**, rigidly affixed to each other and serving to rigidly support the corresponding upper end of the guide means **13**.

Initially, the guide means is positioned and held in proper relationship not only by the upper clamp assembly **15** but the lower assembly **14** which is similarly formed in the clamp portion **23** thereof but which utilizes a somewhat modified form of bracket assembly **24**, as will hereinafter be more particularly disclosed. In any case, both of the bracket assemblies **21** and **23** are identically formed and each is constructed essentially of an elongate length of somewhat resilient rigid metal rod which is bent back upon iself to define a loop **25**, such as is indicated in connection with the clamp assembly **21** and which loop is interconnected by the cross piece member **26** serving as a mounting means upon which the bracket **22** is attached and which includes the diverging leg portions **27** and **28**, see particularly Fig. 2, which terminate in inwardly converging base portions **29** and **30** rigidly affixed to the clamp plates **31** and **32** respectively and which may be suitably stayed or braced thereon as, for example, by the members **33** and **34**. The clamp plates are provided, preferably, on their inner faces with hobs **35** or similar projections to place into and frictionally hold in the wooden wall portions **11** and **12**. Adjacent the juncture of the leg **28** and the base portion **30**, there is secured in depending relation thereto, a suitable nut **36** as is shown most clearly in Figs. 1 and 2 and adjacent the juncture between the leg **27** and the base portion **29** and in depending relation thereto, is a tab element. The tab element is provided with an aper-

ture to receive the T-bolt member 38 which has a threaded end portion 39 engaged with the nut 36 and which is provided with spaced locating collars 40 and 41 disposed on opposite sides of the tab and serving to fix the bolt 38 against longitudinal movement relative to the leg 27. The head of the bolt 38 is provided with a cross piece 42 by means of which it can be easily and readily turned and it will be manifest that rotation of the bolt in a counterclockwise direction will feed the nut 36 toward the free end thereof and serve to move the two legs 27 and 28 apart and, consequently, move the associated clamp plates 31 and 32 out of clamping engagement with the wall corner.

Each of the assemblies 14 and 15 it attached to its associated bracket members 22 or 24 in an identical manner. As is shown most clearly in Fig. 1, the bracket 22, for example, is supported on its associated assembly 15 through the medium of the cross bar 26 and the associated wing nuts 43 and 44. The wing nuts cooperate with bolt or stud members carried by the cross bar 26 so as to affix the bracket 22 to the cross bar 26 and yet to permit a slight degree of adjustment of the bracket with respect to its supporting assembly 15. As shown in Fig. 3 the bracket has apertures to receive the bolt or stud members with sufficient looseness to permit the adjustment. These apertures may be circular holes as shown, as desired. This adjustment is necessary in order to permit the bracket 22 to adequately and properly position the angle guide member 13 with respect to the corner 17. The upper bracket 22 is attached to the guide element 13 in a manner which is different from the mode of attachment of the lower bracket 24 to the guide and the construction and attachment of the bracket to the guide member is shown more clearly in Fig. 3.

In this figure, it will be seen that the outer end of the guide bracket 22 is provided with a V-shaped notch which straddles the outer faces of the guide legs 19 and 20 and which notch is defined by down turned flap portions 45 and 46 depending from the main body portion of the bracket 22 and which fit flush against the outer sides of the respective legs 19 and 20. These flaps 45 and 46 originally extend beyond the associated ends of the bracket and are turned back upon themselves to present the end tab portions 47 and 48, each of which is provided with an opening threadedly receiving a set screw element 49 or 50 by means of which the bracket can be rigidly clamped to the guide element 13. From Fig. 3, it will be apparent that the bracket 22 must be engaged over the end of the guide assembly 13 so as to straddle respective legs 19 and 20 and can then be slid along the length of the guide member and positioned properly in respect thereto, after which the set screws 49 and 50 are tightened to hold the desired adjustment and support the guide element from moving vertically.

The lower bracket has its guide element engaging end portion constructed in a manner similar to the bracket 51 illustrated in Fig. 6. The bracket 51 is provided with a V-shaped notch 52 and two end tab portions 53 and 54 as shown. The end tab portion 53 is provided with an inwardly extending shoulder portion 55 which engages over the end edge of a cooperating leg 19 or 20 of the guide element and the opposite end tab portion is provided with a rectangular recess 56 which receives and engages with the edge of the opposite leg 19 or 20. The purpose of this construction is to permit the bracket 51 to be engaged in proper relation with the guide element without the necessity of engaging it over the end of the guide element and sliding it along the same. In other words, the bracket 51 may be placed at the exact position on the guide element 13 that is desired and the bracket 24 is identically constructed in its end portion so as to engage the guide element 13.

Each of the end tab portions 53 and 54 is provided with apertures 57 and 58 to receive a retaining clip element 59 as is indicated most clearly in Fig. 7. The

retaining clip 59 includes a cross piece 60 and a pair of depending leg elements 61 and 62, the latter of which project through the apertures 57 and 58 with the cross piece 60 bridging the space therebetween and serving to abut free longitudinal edge portions of the legs 19 and 20 and prevent accidental disengagement of the guide element from the associated bracket with which the clip is used.

The bracket 51 may most properly be termed an auxiliary bracket, for purposes which will be presently apparent and will be seen to include an inner end portion having a pair of spaced parallel feet 63 and 64 thereat which are joined integrally with the main or central body portion 65 of the bracket. Adjacent the juncture of these feet with the body portion 65 and midway therebetween is a V-shaped tongue 66 and on opposite sides thereof the downwardly struck tabs 67 and 68 which are disposed in right angular relationship to each other. In using the auxiliary bracket 51, the feet 63 and 64 are laid on top of a corner brick 69 with the depending tabs 67 and 68 abutting the corner faces of the brick in the manner shown most clearly in Fig. 5 and with the tongue 66 resting upon the upper face of the brick together with the feet 63 and 64. When the bracket is thus placed, after having been engaged with the guide element 13 retained in proper relation thereto by means of the clip 59, mortar 70 is placed on top of this and another course or two of brick laid on top of it so as to firmly affix the bracket 51 in place.

In using the device, the two clamp assemblies 14 and 15 are first secured in position and then their associated brackets 22 and 24 are adjustably attached thereto so that the guide element 13 is properly positioned with respect to the corner 17. The lowermost clamp element 14 and its associated bracket is placed a sufficient distance above the foundation to permit several courses of brick to be laid before the height of the clamp 14 is reached. This permits the use of an auxiliary bracket 51 at a position lower than the bracket 24 which, by the time the mason has reached the height of the clamp 14, will be sufficiently rigid with respect to the brick work due to the hardening of the corner, to permit the auxiliary bracket 51 to entirely replace the bracket 24, in which case the same, together with its clamp assembly 14, may be entirely removed with the auxiliary bracket 51 serving as the sole supporting means for the lower end portion of the guide assembly 13. A further auxiliary bracket may be placed somewhere below the uppermost guide supporting assembly 15 and associated bracket 22 so that when the height of the uppermost bracket assembly 15 is reached, the same may be removed and replaced higher up on the wall with the associated auxiliary bracket originally placed immediately therebelow serving as the lowermost support for the guide assembly.

It is to be appreciated that the vertical height of the guide element 15 is preferably chosen so that when the height of the uppermost bracket assembly 15 is reached, it will be time to build the scaffolding for further work and in this respect, it is to be noted that it is a simple matter to remove the guide assembly together with the removable clamp assemblies associated therewith, leaving only the rigidly attached auxiliary elements to serve as a reference point for later repositioning the guide element after the scaffolding has been built so that the guide assembly, at no time, will constitute an impediment to building the scaffolding. The auxiliary bracket members present no special problem after the brick work is completed inasmuch as they can be grasped by a pair of pliers or a similar instrument and forcibly removed from between the adjacent courses of brick where they were originally placed and yet the mortar will normally hold them sufficiently rigid for proper operation of the guide element 13.

Fig. 4 illustrates a further advantage of the invention in that the guide or chalk lines 75 and 76 can be easily

and readily attached between any adjacent pairs of guide assemblies **13** by simply using the hook elements **77** and **78** as shown or equivalent elements to secure the ends of the lines and in this connection, it may be preferred to provide the outer faces of the legs **19** and **20** of the guide elements with bricklayers' scales so that the attachment is rendered still more beneficial.

I claim:

1. A bricklaying guide assembly comprising an upper and a lower clamp assembly adapted to be clampingly secured to and across a corner of a building structure and embodying a part adapted to project outwardly from the building corner, a bracket removably carried by the outer end of said part of each of said clamp assemblies, and a vertically disposed guide member carried by said brackets and positionable spacedly with respect to the corner of an associated building structure so as to form a corner guide for laying a brick veneer.

2. A bricklaying guide assembly comprising upper and lower clamp assemblies adapted to be clampingly secured to and across a corner of a building structure and embodying an elongate part adapted to project outwardly from the building corner, a bracket removably adjustably secured to the outer end of said part of each clamp assembly, an elongate guide assembly carried by said brackets to be vertically positioned for use and having a longitudinal edge alignable with the corner edge of an associated building structure, and an auxiliary bracket engaged with said guide member below said lower clamp assembly and projecting therefrom away from said longitudinal edge, said auxiliary bracket having projecting portions positionable between adjacent courses of brick whereby to provide an auxiliary support for said guide member when said lower clamp assembly and bracket are removed from an associated building structure.

3. The assembly as defined in claim 1 wherein each clamp assembly comprises an elongate rod doubled back upon itself to provide a bight portion and a pair of spaced leg portions each having a clamping foot rigidly secured at its free end with the two clamping feet being disposed at substantially right angles to each other for engagement against intersecting surfaces of a corner of a building structure, and means for selectively urging said legs toward and away from each other to clamp the assembly upon an associated building structure.

4. The assembly as defined in claim 1 wherein the bracket carried by said upper clamp assembly is provided with a generally V-shaped notch at its outer end for engagement with said guide member, said guide member being of right angular configuration in cross section defined between a pair of intersecting and rigidly connected leg members, said lower bracket having an end projection at one side thereof defining a slot for receiving the longitudinal edge of one of the legs of said guide member and the other side of said bracket having a projection providing a shoulder for abutting the opposite leg of said guide member.

5. The assembly as defined in claim 4 including a clip member extending between the projections on said lower bracket and abutting the longitudinal edges of said legs of the guide member serving to prevent accidental disengagement of the guide member from said lower bracket.

6. The assembly as defined in claim 2 wherein said auxiliary bracket is an elongate body provided with a notched end portion removably receiving said guide assembly and having a pair of spaced parallel legs extending from its opposite end for insertion between adjacent courses of brick and an intermediate body portion, said body portion having a pointed projection extending midway between said legs and adapted for engagement over a brick of a lower course of brick over and on which said legs are engaged and being bounded on opposite sides by downwardly projecting tabs disposed substantially at right angles to each other to center the bracket at the corner of a brick.

7. In a bricklaying guide assembly, a clamp element having coacting jaw plates adapted to grip intersecting surfaces of a corner of a building structure which is to be faced with brick veneer and an elongate part connecting said jaw plates for relative movement and adapted to extend outwardly from the building corner, a bracket member removably and adjustably secured to the outer free end of said elongate part of the clamp element, said bracket having a free end portion, and means for effecting attachment of said free end portion to a guide element for laying up the corner of the veneer.

8. The assembly as defined in claim 7 wherein said elongate part of the clamp element comprises a rod doubled upon itself to form an outer bight portion and a pair of spaced legs each leg being secured to a clamping plate with the clamping plates being disposed substantially at right angles to each other and provided with projections on their inner faces for penetrating into the said intersecting corner surfaces of an associated building structure, means for selectively moving said legs toward and away from each other, said means including a nut element secured to and depending from one of said legs and a guide element secured to and depending from the other leg, and a screw element journaled in said guide element and immovable longitudinally with respect thereto and having a threaded end portion engaged in said nut element.

9. The assembly as defined in claim 8 wherein said legs of the clamp element are joined together adjacent said bight portion by a cross piece, said bracket being mounted adjustably upon said cross piece.

10. In a bricklaying guide assembly, an auxiliary bracket adapted to be fixed between adjacent courses of brick, comprising an intermediate main body portion having a pair of spaced generally parallel legs projecting from one end thereof, a tongue joined with said main body portion midway between said legs and projecting in the same direction as said legs, a tab extending between the juncture of said tongue toward each leg with such tabs being disposed at right angles to said main body portion and to each other to provide an aligning abutment for the corner of a brick, the opposite end of said bracket being provided with a V-shaped notch and projections at the outer ends thereof defining respectively a U-shaped notch for the reception of one leg of an angle member and an abutment shoulder for the other leg of the angle member whereby an angle member may be engaged with said bracket at any point therealong.

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