This invention relates to a bricklayer's tool and more particularly to a tool combining a concave joiner and a raker.

An object of the invention is to provide a multiple tool adapted to be used by bricklayers. A tool in accordance with the invention combines a concave joiner and raker with one providing a handle for the other.

Another object of the invention is to provide a tool which embodies a number of advanced features in a tool for bricklayers.

An important feature of the invention is found in the arrangement of parts from which the raker is constructed. In forming certain types of joints an appreciable quantity of mortar must be removed at the faces of the bricks. A tool in accordance with the invention provides an outlet for this mortar when raking the underside of the upper bricks in a course. The joints in brickwork are of different sizes because of the different heights of brickwork that must be reached. Therefore, the only way to reach a certain height is by the different thicknesses of the joints, making it necessary to touch the upper as well as the lower bricks in a single course in order to make a clean joint. If there is no outlet for this mortar which is being removed, the soft mortar gets under an ordinary raker and smears the brickwork. This is especially undesired when the bricks have a mat face surface.

Another important feature of the invention is found in the arrangement of the scraping attachments. They are made such that they can be trimmed to restore a square edge thereon. Constant scraping of the tool against the brick for the purpose of obtaining a clean and uniform joint causes the raker attachment to wear in the form of a point. This cannot be helped since it is normal attrition for a raker. However, by restoring the raker attachment, i.e., clipping off the pointed end, the useful life of the raker is materially prolonged.

One of the great advantages of this invention is found in its versatility. All conventional types of joints may be formed. Another great advantage and of equal importance is the convenience which the tool affords. It is so designed that the raker section functions as the handle for the concave joiner and alternatively, the joiner functions as the handle for the raker section. The raker section so designed that practically all conventional joints may be formed with the tool.

Another important feature of the invention is found in the actual construction, considering it from a cost standpoint. This tool may be made very inexpensively and yet it combines the functions of numerous individual tools.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIGURE 1 is a perspective view of a multiple tool in accordance with the invention.

FIGURE 2 is a top view of the tool in FIGURE 1.

FIGURE 3 is a side elevational view showing the concave joiner section of the tool being used.

FIGURE 4 is an enlarged sectional view taken on the line 4—4 of FIGURE 3.

FIGURE 5 is a side elevational view showing the raker section of the tool being used.

FIGURE 6 is a sectional view taken on the line 6—6 of FIGURE 5.

FIGURE 7 is a side elevational view showing the raker being used to strike a vertical joint.

FIGURE 8 is a sectional view taken approximately on the line 8—8 of FIGURE 7.

FIGURE 9 is a section showing the raker section being used to form a troweled joint.

FIGURE 10 is a fragmentary enlarged side elevational view showing the end of the concave joiner, this view particularly illustrating the angle at the extremity of the concave joiner.

FIGURE 11 is a fragmentary top view of the tool.

In the accompanying drawings there is an illustration of a multiple tool 10 which constitutes one possible embodiment of the invention. The tool 10 is made in two main sections 12 and 14 with the section 12 constituting a concave joiner and the section 14 forming a raker. The sections are joined together by means of a flat connecting member 16 arranged in a plane at approximately 45 degrees to the planes containing sections 12 and 14. The purpose of this is to allow sufficient leverage for the user, inasmuch as the section 12 functions as a handle for section 14, and section 14 functions as a handle for section 12 (compare FIGURES 3 and 5).

Section 12 is a concave joiner. The entire tool is made of a single piece of metal and therefore, the sections are constituted by formation of the metal into the desired shapes. The concave joiner is approximately semi-circular in cross section and is elongate. The end 20 of the joiner (FIGURE 10) is cut or otherwise formed at an angle of about 30 degrees to a transverse plane passed through the joiner at right angle to the longitudinal axis thereof.

Section 14 is of rather simple construction. It is made of a flat plate 22 joined at the rear edge 24 thereof integrally with connecting member 16. The plate 22 is approximately rectangular when viewed from above (FIGURE 2) and has two side edges 26 and 29 together with an outer edge 32. Edge 24 is integrally joined, as aforesaid, with connecting member 16.

A striker attachment or member 34 is formed integrally with edge 32 and extends forwardly and upwardly therefrom at an angle of approximately 45 degrees to the plane of plate 22. Attachment or member 36 extends downwardly from the plane of plate 22 and is made of an essentially rectangular strip 38 of considerable length in comparison to previous rakers, joined to plate 22 by means of an offset forming member 40. The offset forming member is arranged at approximately 45 degrees to the plane of plate 22 and also to the plane of member 38. The location of member 36 is of importance. It is formed along edge 28 but terminates short of the edge 42 of an opening 44. The opening is formed by a cut-out in plate 22 between edges 22, 28 and 34 thereof. This opening is of considerable importance for the reasons pointed out above.

In use, the edge 28 and a portion of the plate adjacent to edge 28 may be used to form a trowelled joint 60 (FIGURE 9) by holding section 12 and pulling the tool in the usual manner. Concave joints 62 (FIGURES 3 and 4) are formed by holding section 14 and pulling the joiner section across the mortar between courses of brick. This, of course, applies whether the joints are vertical, horizontal or at any angle. The usual arrangement is to have the joints vertical and horizontal, although there is nothing to prevent the tool from being used in unusual situations. Notice that section 12 has the working surface facing oppositely from the working surfaces.
of section 14. This cooperates with the angular connecting member 16 so that the sections are offset from each other providing leverage for correct use of the tool. Attachment 34 (FIGURES 7 and 8) is used to remove excess mortar from the joints such as at 64. The attachment or strip 38 is then used (either horizontal or vertical) to rake out the mortar to a greater depth, while the undersurface of plate 22 rests on the face 68 (FIGURE 6) of the bricks while joint 70 is being formed. As joint 70 is being formed it is to be noted that opening 44, especially at edge 42 directly in front of the end of strip 38, serves an important function. This is so that the loose mortar may be discharged without accumulating beneath the tool and smearing the adjacent bricks.

In forming joints, strip 38 has a tendency to wear to a point 72 (FIGURE 11) as shown in dotted lines. When this happens, the point 72 may be snapped off or otherwise cut off along line 74 thereby restoring the right angular edge of strip 38.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed. For example, although the term “brick” is used herein, it is to be clearly understood that this is merely one type of masonry. There are many others including tile, block of all types, etc., with which the tool may be used.

What is claimed as new is as follows:

1. A bricklayer's multiple purpose tool comprising a connecting member, a raker at one end of said connecting member, a concave joiner at the other end of said connecting member, said rake and joiner being essentially parallel and non-coplanar, said connecting member joined to said joiner and raker so that said raker and said joiner are held in laterally spaced planes, said raker constituting the handle for said joiner and said joiner constituting the handle for said raker, said raker having an essentially flat plate provided with a mortar discharge opening, a strip fixed to said plate and in a plane spaced from and parallel to the plane of said plate and in opposition to said mortar discharge opening so that the mortar removed by said strip passes through said opening.

2. A bricklayer's multiple purpose tool comprising a connecting member, a raker at one end of said connecting member, a concave joiner at the other end of said connecting member, said raker and joiner being essentially parallel and non-coplanar, said connecting member joined to said joiner and raker so that said raker and said joiner are held in laterally spaced planes, said raker constituting the handle for said joiner and said joiner constituting the handle for said raker, said raker having an essentially flat plate provided with a mortar discharge opening, a strip fixed to said plate and in a plane spaced from and parallel to the plane of said plate and in opposition to said mortar discharge opening so that the mortar removed by said strip passes through said opening.

3. A bricklayer's multiple purpose tool comprising a connecting member, a raker at one end of said connecting member, a concave joiner at the other end of said connecting member, said raker and joiner being essentially parallel and non-coplanar, said connecting member joined to said joiner and raker so that said raker and said joiner are held in laterally spaced planes, said raker constituting the handle for said joiner and said joiner constituting the handle for said raker, said raker having an essentially flat plate provided with a mortar discharge opening, a strip fixed to said plate and in a plane spaced from and parallel to the plane of said plate and in opposition to said mortar discharge opening so that the mortar removed by said strip passes through said opening and does not accumulate beneath said plate, said strip being subject to wear at the outer end thereof and being of sufficient length to be severed at the pointed end to restore a blunt outer edge thereon.

4. A bricklayer's multiple purpose tool comprising a connecting member, a raker at one end of said connecting member, a concave joiner at the other end of said connecting member, said raker and joiner being essentially parallel and non-coplanar, said connecting member joined to said joiner and raker so that said raker and said joiner are held in laterally spaced planes, said raker constituting the handle for said joiner and said joiner constituting the handle for said raker, said raker having an essentially flat plate provided with a mortar discharge opening, a strip fixed to said plate and in a plane spaced from and parallel to the plane of said plate and in opposition to said mortar discharge opening so that the mortar removed by said strip passes through said opening and does not accumulate beneath said plate, said strip being subject to wear at the outer end thereof and being of sufficient length to be severed at the pointed end to restore a blunt outer edge thereon, said attachment member at the outer extremity of said plate and at an angle to the plane of said plate for initially removing mortar from the joint.

References Cited in the file of this patent

UNITED STATES PATENTS

918,967 Close .......................... Apr. 20, 1909
1,195,297 Vlchek ........................ Aug. 22, 1916
1,436,254 Henry .......................... Aug. 22, 1922
1,445,021 Johnson .......................... Feb. 13, 1923