March 1, 1966 W. B. MOODY 3,237,235

JOINT RAKER

Filed Jan. 21, 1964

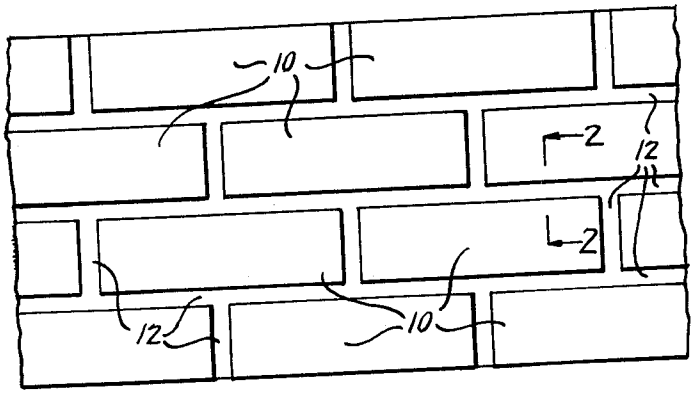


FIG. 1

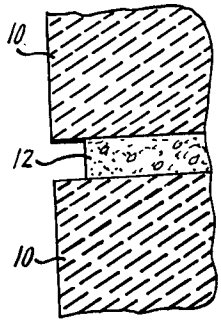


FIG. 2

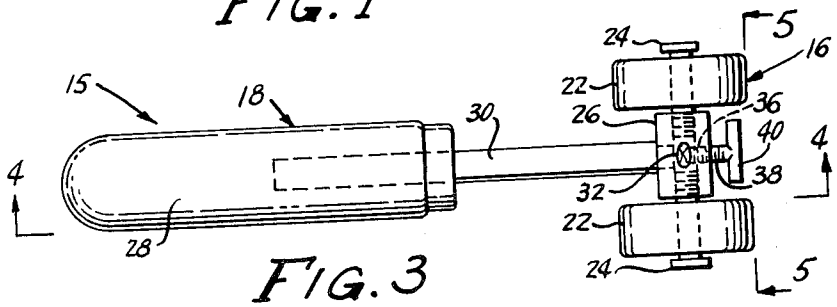


FIG. 3

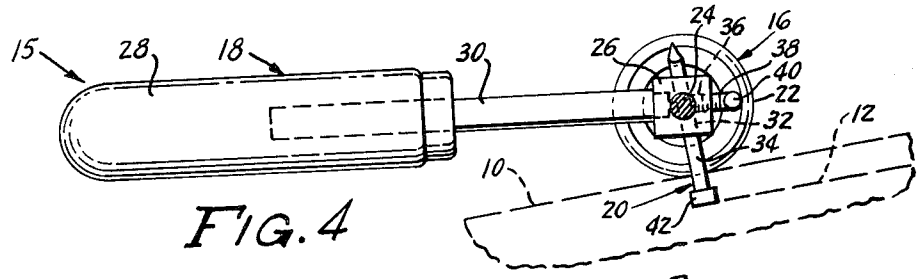


FIG. 4

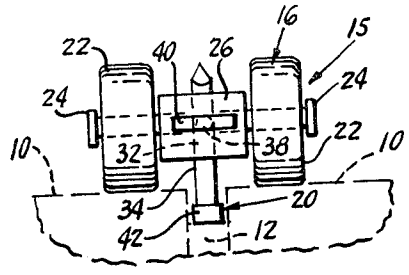


FIG. 5

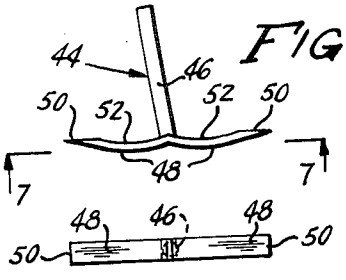


FIG. 6

FIG. 7

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JOINT RAKER

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2 Claims. (Cl. 15—235.3)

This invention relates to a joint raker and more particularly to a wheeled device carrying a tool means, the wheels being adapted to ride on opposite sides of a joint extending between spaced masonry elements, and the tool means including portions extending into the joint to rake or smooth the mortar or the like therein.

It will be understood that the terminology "masonry elements" is intended to encompass such items as brick, cinder block, compressed concrete slabs, and other similar articles normally secured to each other by a material such as mortar or the like.

A primary object of this invention is the provision of a device of the type described which is sturdy and durable in construction, reliable and efficient in operation, and relatively simple and inexpensive to manufacture, assemble, utilize, and maintain.

Another object of this invention is the provision of a joint raker which adjustably carries a tool means to vary the depth of the raking operation.

Yet another object of this invention is to provide a joint raker having a substantially T-shaped tool means with a pair of arcuate arm members which both rake and smooth or trowel the joint.

Other and further objects reside in the combination of elements, arrangement of parts, and features of construction.

Still other objects will in part be pointed out and in part be seen as the description of the invention proceeds and as shown in the accompanying drawing wherein:

FIGURE 1 is a front elevational view of a plurality of masonry elements secured to each other by horizontal and vertical mortar joints;

FIGURE 2 is a fragmentary enlarged transverse cross-sectional view through one of the joints;

FIGURE 3 is a top plan view of a joint raker in accordance with the instant invention, certain hidden parts being shown in dotted lines;

FIGURE 4 is a cross-sectional view taken substantially on line 4—4 of FIGURE 3 showing the device in operation, a portion of a masonry joint being indicated in dotted lines;

FIGURE 5 is an end elevational view taken substantially on line 5—5 of FIGURE 3, a portion of the masonry joint being raked shown in dotted lines;

FIGURE 6 is a side elevational view of a modified form of tool means for use with a joint raker of the instant invention; and

FIGURE 7 is a bottom plan view taken substantially on line 7—7 of FIGURE 6.

Similar reference characters refer to similar parts throughout the several views of the drawing.

Referring now to the drawing in general, and more particularly to FIGURES 1 and 2, a plurality of masonry elements such as bricks or the like are designated by the reference numerals **10** and are indicated as separated by mortar joints **12**, one such joint being shown enlarged in FIGURE 2 after the device of the instant invention has raked the same to remove excess mortar and to provide a smooth, uniform surface.

Referring now more particularly to FIGURES 3 to 5, the device of the instant invention is designated generally by the reference numeral **15** and comprises basically a wheel means **16**, a handle means **18** carrying the wheel means **16**, and a tool means **20** carried by the wheel means **16**.

The wheel means **16** includes a pair of wheel members **22** carried by an axle means including threaded bolt members **24** passing through an aperture in wheel members **22** and engaged in correspondingly threaded longitudinal bores defined in an axle support member **26**.

The handle means **18** includes a handle member **28** formed of wood or other suitable material secured to a shank **30** in any conventional manner, the end of the shank **30** being fixed to the axle support member **26**.

The tool means **20** is adjustably carried by the wheel means **16**, a first bore **32** being defined through the axle support member **26** and slidingly receiving a shank portion **34** of the tool means **20**. Portions of the axle support member **26** also define a threaded second bore **36** communicating with the first bore **32** and having a correspondingly threaded member **38** received therein with portions of the member **38** extending into the first bore **32** for engaging the shank **34** of the tool means **20**, the threaded member **38** having an elongated transverse headed portion **40** for tightening and loosening the same which functions as a securing means for the tool means **20**.

One embodiment of the tool means **20** is shown in FIGURES 3 to 5 as comprising a nail or the like having an enlarged headed portion **42** which extends beyond the periphery of the wheel members **22** whereby the headed portion **42** of the tool means **20** will rake the joint **12** while the wheel members **22** ride on the masonry elements **10** on either side of the joint **12**. The tool means **20** is carried in a plane extending substantially centrally between the wheel members **22** so as to facilitate engaging the same in the joints **12**.

A conventional nail may be utilized as a tool means or a specially hardened tool element having the same configution may be substituted therefor.

A modified form of tool means is shown particularly in FIGURES 6 and 7 as comprising a substantially T-shaped element **44** having a shank **46** receivable in the first bore **32** in a manner similar to the shank **34** of the tool means **20**. The tool means **44** includes a pair of shallow arcuate arm members **48** secured to each other and to the shank **46** at the center, and having oppositely disposed end portions **50** which are closer to the periphery of the wheel members **22** in use than the intermediate curved portions **52** of the arm members **48**. The shank **46** and the arm members **48** are not disposed at right angles to each other, but define an angle for facility in use. The arm members **48** are each shown as relatively flat surfaced and may be provided in any desired width depending upon the joint to be raked.

The use and operation of the device of the instant invention will now be apparent. The tool means is adjustably secured to the device **15** by inserting its shank **34** or **46** into the first bore **32** of the axle support member **26** until the headed portion **42** or the arm members **48** extend a desired distance below the periphery of the wheel members **22**. The threaded member **38** is then tightened in the second bore **36** to secure the tool means in adjusted relation. The elongated transverse headed portion **40** on the threaded member **38** may be utilized by hitting either of its ends with a weighted tool, such as a hammer or the like, to facilitate tightening or loosening the same. The wheels **22** are then set on opposite sides of a selected joint **12** and the tool is drawn in the joint to rake the same. The handle means **18** and the tool means **20** are secured to the axle support member **26** at an angle greater than 90° and less than 180° to facilitate use of the device. With the modification of FIGURES 6 and 7, depending upon the angle at which the handle means is disposed, the ends **50** of the arm members **48** may be utilized to rake the joint and the intermediate curved portions **52** will perform a smoothing or troweling function.

It will now be seen that there is herein provided an

improved joint raker which satisfies all of the objectives of the instant invention, and others, including many advantages of great practical utility and commercial importance.

Since many embodiments may be made of the instant inventive concept, and since many modifications may be made of the embodiments hereinbefore shown and described, it is to be understood that all matter herein is to be interpreted merely as illustrative, and not in a limiting sense.

I claim:

1. A joint raker of the class described comprising an axle support block having first, second and third pairs of opposed parallel sides; a pair of oppositely positioned rod shaped axles threadably mounted perpendicular to said first pair of sides and having a common axis extending through the geometric center of said block; a wheel rotatably mounted on each of said axles and positioned to ride on opposite sides of a mortar joint separating spaced masonry elements; a rake and smoothing tool including a rod-like shank movably mounted in a bore extending obliquely through said second pair of sides, through said center and residing substantially perpendicular to said axis, said shank terminating in an enlarged cap portion having a thickness at least as wide as the diameter of said shank and being adapted to rake said mortar in said joint; an adjusting screw having a T-shaped head at one end adapting said adjusting screw to be turned by a hammer, trowel or the like, and having a threaded body and a blunt portion at the other end, said adjusting screw being threadably received by a threaded bore extending from one side of said third pair of sides in a direction perpendicular to said axle axis and in a direction being angularly askew with the axis of said shank receiving bore, said adjusting screw bore and said shank receiving bore being in open communication, said adjusting screw adapted to be turned into a position of selected engagement with said shank thereby locking said shank in its respective bore and positioning said tool means to protrude downwardly into the joint to be worked; and a handle means including an elongated handle shaft rigidly secured to the other side of said third pair of sides and having a common axis with the axis of said adjusting screw and a handle member secured to said handle shaft.

2. A joint raker as claimed in claim 1 in which said rake and smoothing tool cap portion includes a crossbar, said crossbar including shallow arcuate arm members, each having two ends and intermediate curved portions, one of said ends of each arm member being secured to said cap portion.

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