

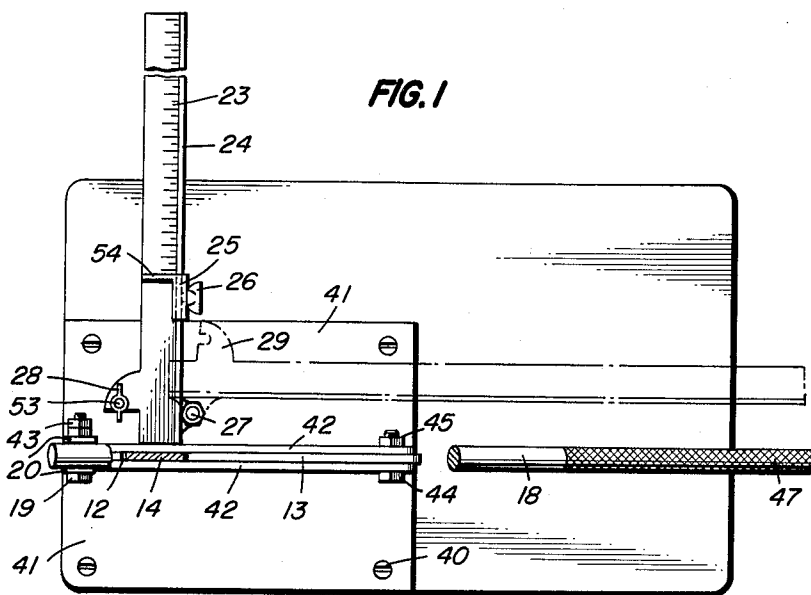
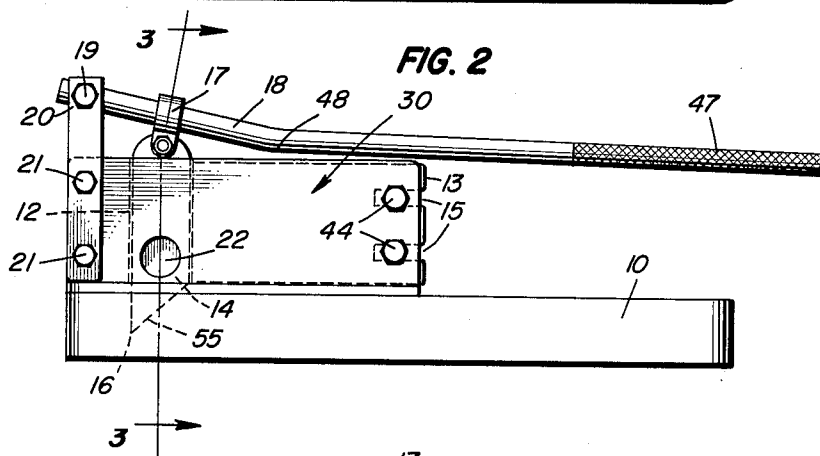
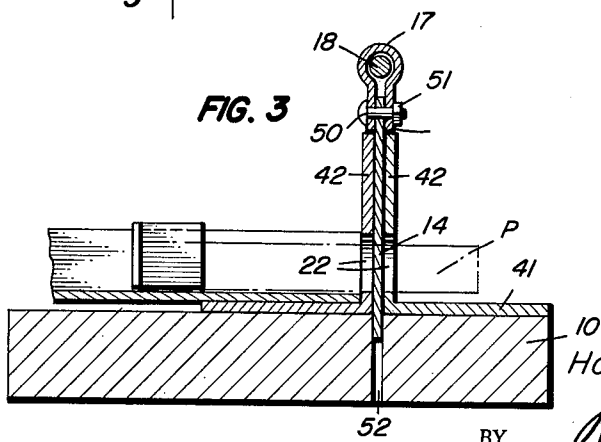
Nov. 30, 1965

H. P. BRADBURN, SR

3,220,294

VALVE PACKING CUTTING MACHINE

Filed Nov. 8, 1963



INVENTOR

Howard P. Bradburn, Sr.

BY

Robert J. Lainof
ATTORNEY

1

3,220,294

VALVE PACKING CUTTING MACHINE

Howard P. Bradburn, Sr., 29 Rixey Drive, Alexandria, Va.
Filed Nov. 8, 1963, Ser. No. 323,201
2 Claims. (Cl. 83—580)

This invention relates to an economical and efficient machine for use in cutting valve packing or similar material which is equipped with a vertically reciprocating mounted cutting device; and the invention has references, more particularly to a novel arrangement of parts, whereby the improved machine of my invention may be used for cutting valve packing in suitable and preferred lengths as desired in the field; and is a continuation, in part, of application filed by me on October 14, 1958, Serial No. 767,181, now abandoned.

The machine of my invention comprises a base which has fixed thereon upright members arranged to provide a guiding slot for a vertically reciprocating cutting device, a measuring device is pivoted to the base for movement into position for use in determining the length of the packing to be cut.

The invention has for an object to provide a vertically reciprocating cutting device arranged in such manner that an extended length of valve packing may be quickly and selectively cut into lengths desired for a particular job.

As seen in FIGURE 2, bar 18 extends downwardly from the pivot 19 and is angled at 48 to extend in a generally horizontal direction. It is to be noted that the bar arranged in this manner provides a definite slide-way for the collar 17 and thus permit free movement of the collar as the cutting member 14 is thrust downwardly. This arrangement also permits the cutting member 14 to be free to move in its downward cutting direction without binding action against the walls of the spacing members 12 and 13. In FIGURE 3 attention is particularly noted to the spacing between the sleeve 17 and bar 18 to permit the free movement of the collar 17 on the bar 18.

The invention has for another object the provision of a simple, low cost, efficient and practical machine for use in cutting valve packing in any desired length at the job site.

A further object of my invention is to provide a machine for use in the field which is simple in operation and which will provide a desired length of valve packing without frayed or ragged edges.

A further object of my invention is to provide a device which will perform an exact cutting operation in a minimum of time with a resultant saving in cost of labor.

Other objects and features of this invention will become more apparent from the following detailed description:

FIGURE 1 is a top plan view of the machine of my invention showing in dotted line the collapsed position of the measuring device.

FIGURE 2 is a vertical elevational view of the device shown in FIGURE 1, with the cutting device in the lowered position after completion of a cut.

FIGURE 3 is a vertical sectional view in elevation of the machine of my invention, taken in the direction of the arrows 3—3 in FIGURE 2.

Similar characters of references are employed in the above described views to indicate corresponding parts.

Referring to the drawings 10 indicates the base of a valve packing device, upon which is mounted two angle iron members 30—30. The angle iron members are fastened on one side 41 to the base 10 by means of screws 40, as shown in FIGURES 1 and 3, in spaced relation for a purpose to be described hereafter.

The sides 42—42 of each angle member 30, as shown in FIGURE 3, are spaced from each other to receive a fixed spacer member 12 therebetween at one end thereof

2

and an adjustable spacing member 13 therebetween at the other end of the angle members. The spacing member 13 is provided with slotted portions 15—15, as seen in FIGURE 2, on its end opposite to that nearest the spacer 12.

Strap members 20—20 are fixed to the outer faces of the sides 42 by means of bolts 21 and nuts 43. The bolts are extended through openings in the straps, the sides 42 and the spacing member 12 to bind these members into a rigid unit.

Bolts 44 and nuts 45 are inserted through openings at the opposite end of the sides 42; a bolt being received within each of the slotted portions 15 of the adjustable spacing member. As is thus obvious, the adjustable spacing member 13 is thus capable of being moved toward and away from the cutting member 14 in order to provide a vertical guide for the blade and additionally to prevent side play in the operation of the blade during the cutting operation.

Pivotally attached to the upper end of the straps 20—20 by means of a pivot bolt 19 held in position by nut 46 is one end of a bar 18 provided at its other end with a knurled grip portion 47. The bar is angled at 48 as shown in FIGURE 2.

Loosely and slidably mounted on the bar 18 adjacent to the pivot 19 is a U-shaped strap member 17 on which is pivotally mounted the cutting member 14. The legs 49 of the strap 17 is pivotally connected to the upper end of the cutting member 14 by means of a pivot bolt 50 and fastening nut 51. The cutting member is received in a vertical guiding slot formed between the fixed spacer 12 and the adjustable spacer 13 and is extended in the cutting operation, into a groove or slot 52 formed in the base 10.

Openings 22 are formed in aligned position in each of the sides 42 of the angle members 30—30. The openings 22 are also aligned with the vertical guiding slot formed by the spacer members 12 and 13.

Pivotally mounted on a pin 27 extending upwardly from the side 41 of the inner angle member 30 is a scaled measuring guide 23 which is locked in the operating position by means of a wing nut 28 threaded on a pin 53 extending upwardly from the side 41 of said inner angle member. The measuring guide is provided with a notched extension 29 adjacent its pivot at 27. The extension 29 is received by the pin 53 and the measuring guide is thus locked in its operating position by means of the wing nut 28.

The measuring guide is formed from an angle iron having an upstanding member 24 on which a slidable adjusting member 25 is provided to adjust the device for cutting selective lengths of cable. The adjusting member 25 is provided with a laterally extending portion 54 which provides a stop in cutting the desired length of cable. A wing nut 16 is utilized to fix the adjusting member at a desired position on the measuring guide as is obvious.

The cutting member is provided with an angled blade 55 for easier cutting operation.

Operation

From the foregoing description it appears obvious that I have devised a simple and most efficient device, which will permit the user thereof to easily cut a desired length of valve packing cleanly, without loss of time, with a greater degree of accuracy than has heretofore been possible in the trade, and without the problem and nuisance of frayed and jagged ends which has heretofore plagued the craft.

In performing the cutting operation, the operator of any device pivots the measuring guide 23 about the pivot 27 from the inactive position as indicated in dotted line

3

to the operating position shown in full line in FIGURE 1. The bar 18 is then gripped by the operator by one hand at the knurled portion 47 and raised to a point wherein the cutting member 14 is raised above the openings 22 in the angle iron sides 42. With his other hand the operator then inserts the material P, such as valve packing, to be cut through the openings 22 (from the right side as seen in FIGURE 3) until the material abuts the stop 54 of the adjusting member. The operator then presses down the bar 18 which thus lowers the point 16 of the cutting blade 14 and the blade to cut through the material P.

As is obvious the adjusting member 25 has previously been fixed at a desired position on the guide 23 to determine the length of the material to be cut. Also, as is obvious, it is thus possible to cut many more exact same lengths of valve packing or other material by the same setting of the adjusting member without the time consuming method of measuring each length cut.

Although I have hereinabove set forth a preferred embodiment of my invention, it is considered obvious that many changes may be made in this device without departing from the spirit of the invention as defined in the appended claims.

Having thus described my invention, what is claimed as new is:

1. A cutting device for valve packing or the like material comprising a base member, a pair of plates upstanding from said base and laterally spaced from each other, a strap member attached to one end of the plates and extended upwardly therefrom, a bar pivotally attached to said upwardly extended portion of the strap member for vertical reciprocating movement, said bar mounted to extend downwardly at an angle from its pivotal attachment to said strap member, a cutting member pivotally attached to a collar loosely mounted on said bar for movement therewith, aligned openings formed in said plates adjacent the base member, the inner face of said collar being spaced from said arm to permit free sliding movement on said bar, a measuring guide pivotally mounted on said base member for pivotal movement from an inactive position adjacent and parallel to said plates to an operative extended position aligned with said openings, means for locking said measuring guide into said operative extended position a first spacer member mounted between said plates and a second spacer member mounted

4

between said plates and clamped between said plates in fixed position, said second spacer member being adjustable in a horizontal plane with respect to said plates and a stop slidably mounted on said measuring guide for determining the length of the material to be cut.

2. A cutting device for valve packing or the like material comprising a base member, a pair of plates upstanding from said base and laterally spaced from each other, a strap member attached to one end of the plates and extended upwardly therefrom, a bar pivotally attached to said upwardly extended portion of the strap member for vertical reciprocating movement, said bar mounted to extend downwardly at an angle from its pivotal attachment to said strap member, a cutting member pivotally attached to a collar loosely mounted on said bar for movement therewith, the inner face of said collar being spaced from said arm to permit free sliding movement on said bar, aligned openings formed in said plates adjacent the base member, a measuring guide pivotally mounted on said base member for pivotal movement from an inactive position adjacent and parallel to said plates to an operative extended position aligned with said openings, means for locking said measuring guide into said operative extended position a first spacer member mounted between said plates, and clamped between said plates in fixed position, and a second spacer member mounted between said plates; and clamped between said plates, means for selectively adjusting said second spacer member, said second spacer member being selectively adjustable in a horizontal plane with respect to said plates to provide a desired width channel between said first and said second spacer member.

References Cited by the Examiner

UNITED STATES PATENTS

247,566	9/1881	Kaempf	83—605 X
764,098	7/1904	Allen	83—634 X
983,094	1/1911	Swing	83—635 X
1,407,151	2/1922	Halcumb	83—580 X

FOREIGN PATENTS

18,308 5/1930 Australia.

WILLIAM W. DYER, Jr., *Primary Examiner.*

ANDREW R. JUHASZ, *Examiner.*