May 2, 1933. T. J. GUNDLACH 1,906,582

CUTTING DEVICE

Filed Oct. 25, 1928

Fig. 1.

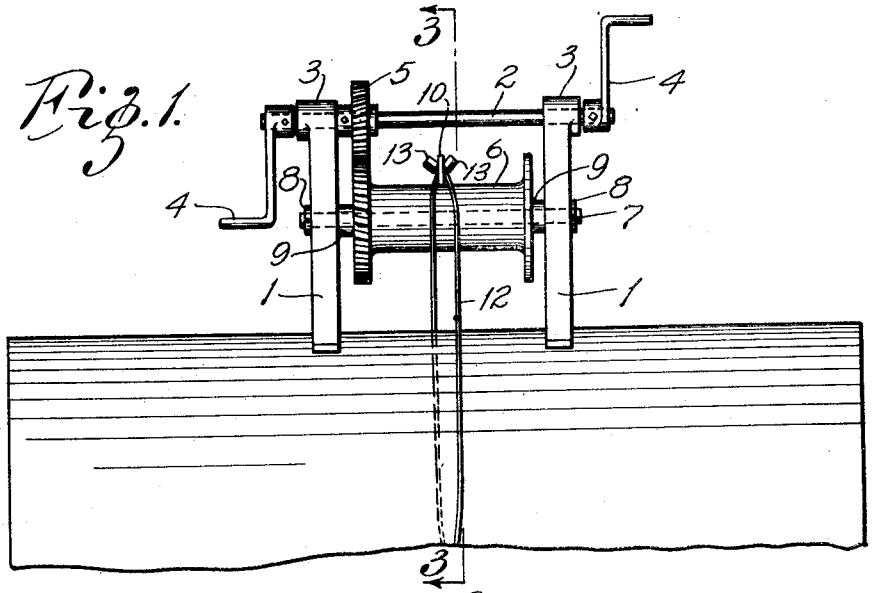


Fig. 2.

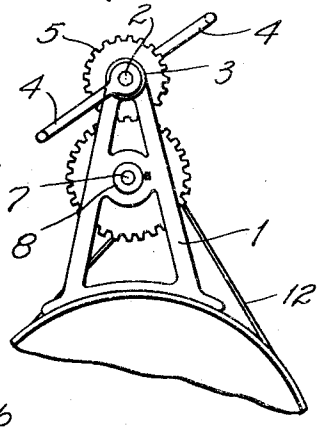


Fig. 3.

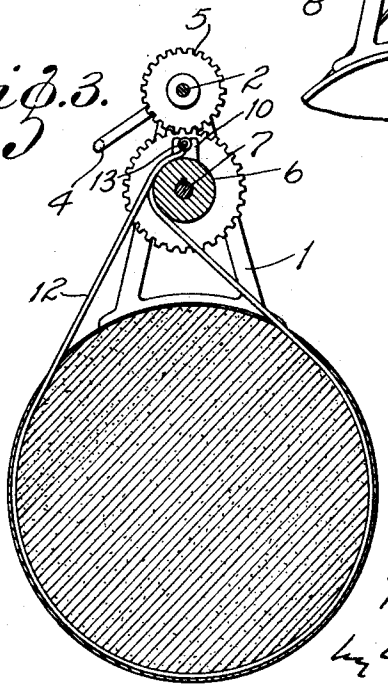
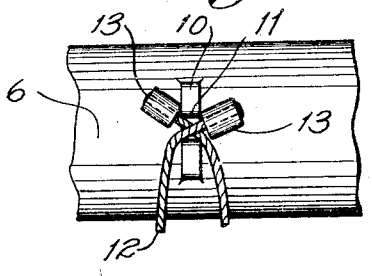


Fig. 4.



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UNITED STATES PATENT OFFICE

THEODORE J. GUNDLACH, OF BELLEVILLE, ILLINOIS

CUTTING DEVICE

Application filed October 25, 1928. Serial No. 314,956.

This invention relates to devices particularly adapted for use in cutting barrelled bituminous paving or roofing materials, such as asphalt, pitch, or tar, when they become too soft and tenacious to permit the material to be split or broken into pieces small enough to be placed within the melting kettle.

The principal object of the present invention is to provide a simple and efficient device which will quickly and easily cut such tenacious material into pieces or sizes suitable to be received within the melting kettle. Other objects are to reduce the cost, size and weight of such devices and to make them easy to operate.

The invention consists in the cutting device and in the construction, combinations and arrangements of parts hereinafter described and claimed.

In the accompanying drawing, which forms part of this specification and wherein like symbols refer to like parts wherever they occur,

Fig. 1 is a side elevation of a cutting device embodying my invention, the device being shown positioned on a barrel and ready for use in cutting through the material packed therein;

Fig. 2 is an end elevation of the parts shown in Fig. 1;

Fig. 3 is a vertical cross-section on the line 3—3 of Fig. 1; and

Fig. 4 is an enlarged detail view of the middle portion of the winding drum, showing the manner in which the ends of the cutting wire or cable are attached to said drum.

The present cutting device is designed particularly for use in cutting bituminous materials, such as asphalt, pitch or tar, that are packed in containers in the form of wooden barrels or metal drums. As shown in the accompanying drawing, a portable winding device therefor in the upper ends of said standards. The drive shaft 2 extends beyond the outer faces of the respective end standards and is provided with crank handles 4 whereby said shaft may be manually rotated. Fixed to the drive or crank shaft 2 adjacent to the inner face of one of the end standards 1 is a pinion 5, which meshes with a reducing gear fixed to the adjacent end of a horizontally disposed winding drum 6 located below said crank shaft. The winding drum 6 is rotatably supported on a horizontally disposed shaft 7 whose ends are supported in bearings 8 provided therefor in the respective end standards 1. Spacing sleeves 9 are mounted on the supporting shaft 7 between the ends of the winding drum and respective standards to prevent longitudinal movement of said drum on said shaft.

The winding drum 6 is provided intermediate its ends with a radially extending lug 10, which is provided with a radially extending outwardly opening notch 11 adapted to receive both ends of a flexible cutting device preferably in the form of a short length of wire or cable 12. Each end of the cutting wire or cable 12 is provided with a cylindrical fitting 13 whose diameter is larger than the width of the cable receiving notch in the radially projecting lug on the winding drum.

The cutting device is used as follows: When the temperature is such that the tar, asphalt or pitch cannot be broken into pieces of the desired size, the block of material is first removed from the container, if the inner surface thereof has been properly chalked to prevent the material from sticking therein. The block is then laid on its side, and the winding device or winch is placed on top of the block with its winding drum extending longitudinally thereof and with the concave bottoms of the end standards fitting the convex sur-

drum with the end fitting on one end of the cable disposed on one side of said lug and with the end fitting on the other end of this cable disposed on the other side of said lug. The winding drum is then rotated by means of the crank handles, thereby causing both ends of the cable to be wound upon the drum and the loop to become smaller and smaller and thus cut through the block. The winding device or winch is then shifted longitudinally of the block and adjusted and operated to cut the same into pieces of the desired size.

In the event that the tenacity of the material is such that the block cannot be removed from the container, the wall of the container is cut through by means of an axe or other suitable instrument; and the winch or winding device is placed on the barrel with the cable entered within the cut and engaged with the block, after which the winding device or winch is operated in the manner above described to draw the cutting wire through the block.

The hereinbefore described cutting device has numerous advantages. It is simple and easy to operate, there are few parts to break or get out of repair, and it is capable of being easily carried in the hand or transported from place to place.

What I claim is:

1. A cutting device for block materials of the kind described comprising a winch adapted to be mounted on the block of material and a cutting cable adapted to be looped around said block of material with both ends attached to said winch to be wound thereon, whereby the action of winding said cable on said winch causes the cable to be drawn through said block of material.

2. A cutting device of the kind described comprising a winch including a winding drum and means for rotating said winding drum, and a cutting cable, said winding drum being provided with a radially projecting lug having a notch therein which extends longitudinally of said drum and is adapted to receive both ends of said cable, said ends of said cable being provided with end fittings of a width greater than the width of said notch.

Signed at St. Louis, Missouri, this 23d day of October, 1928.

THEODORE J. GUNDLACH.