Aug. 17, 1937. D. J. COFFEY 2,090,471

INSTRUMENT FOR CUTTING BRICKS

Filed Feb. 10, 1937

Fig. 1.

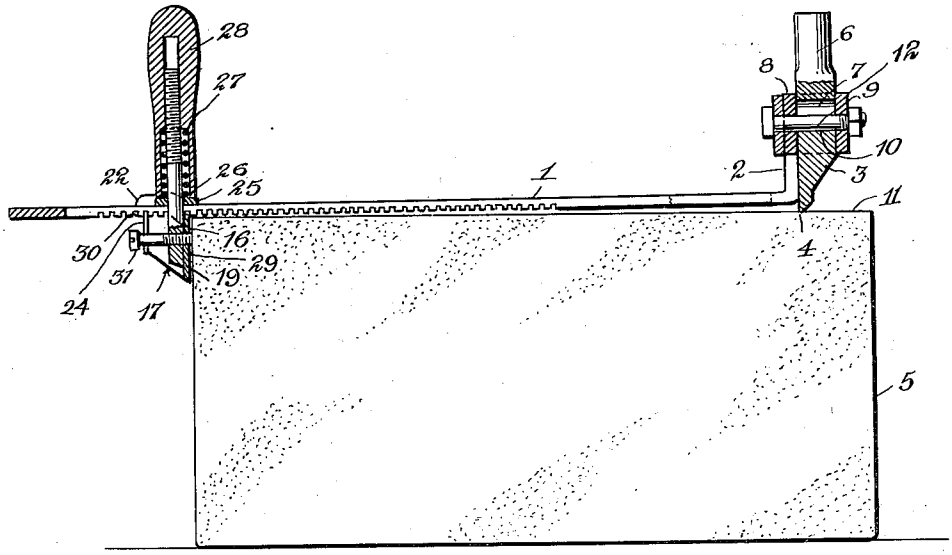


Fig. 2.

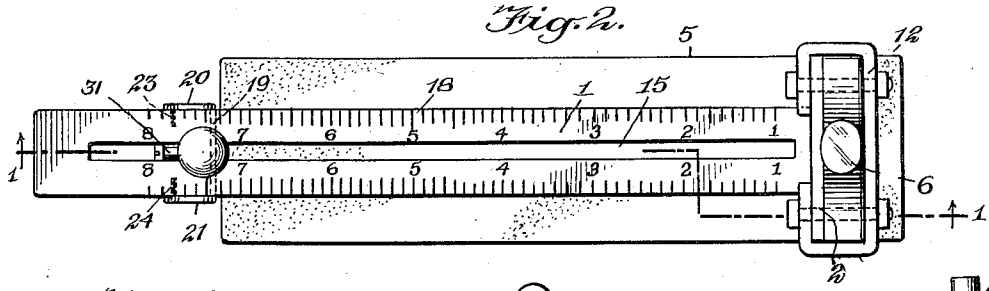


Fig. 3.

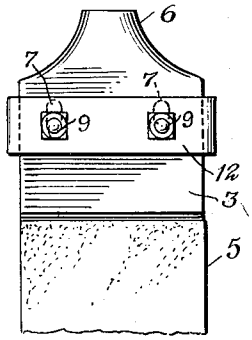


Fig. 4.

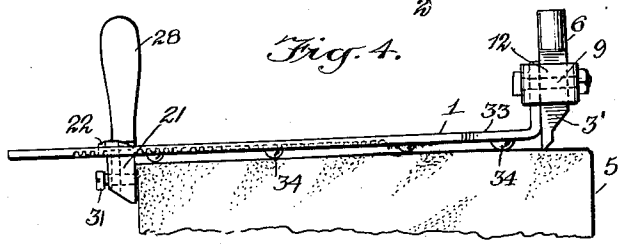
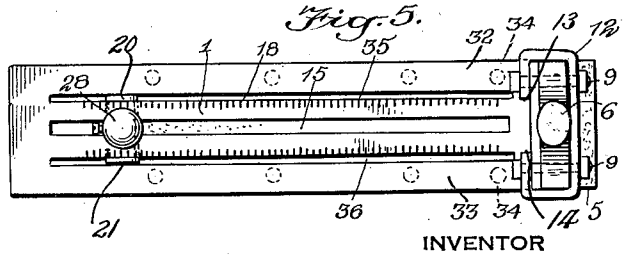


Fig. 5.



WITNESSES

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INSTRUMENT FOR CUTTING BRICKS

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9 Claims. (Cl. 125—23)

This invention relates to instruments for cutting bricks or blades formed of clay, gypsum, tile, or other material, and has for an object to provide an improved simplified construction wherein bricks may be accurately cut in any desired sections or lengths.

Another object of the invention is to provide an instrument for cutting bricks wherein the cutting instrument is automatically held at a slight angle to the surface of the brick so that part of the brick retained after the cutting operation will have a comparatively straight accurate edge.

Another object of the invention is to provide an instrument for cutting bricks wherein a desired cutter is arranged at one end of the instrument and a sliding abutment is provided to accurately regulate the length of cut.

In the accompanying drawing:

Fig. 1 is a longitudinal vertical sectional view through an instrument disclosing an embodiment of the invention, the same being shown applied to one edge of a brick, the section being taken along line 1—1 of Fig. 2;

Fig. 2 is a top plan view of the instrument shown in Fig. 1 in the same relative position on a brick as illustrated in Fig. 1;

Fig. 3 is an end view of the instrument shown in Fig. 2 together with part of the brick;

Fig. 4 is a side view of a slightly modified form of instrument to that shown in Fig. 1 together with a part of a brick;

Fig. 5 is a top plan view of the structure shown in Fig. 4.

Referring to the accompanying drawing by numerals, 1 indicates the body of the instrument which is provided with a turned-up portion or member 2 at one end. The turned-up or upstanding member 2 is substantially at right angles to the body 1 and against the upstanding member rests one surface of the cutter 3.

In laying bricks, tile, and the like, quite often it is necessary to cut a brick or tile in half or to cut off some part so as to fit into the desired place. Heretofore various measuring devices and other devices have been used to indicate where the brick is to be cut. Quite often the devices heretofore used produced inaccurate cutting and consequently certain difficulties in laying bricks.

In the instrument shown in Fig. 1, means have been provided whereby the cutting edge 4 of the cutter 3 may be accurately positioned on the brick 5 whereby the desired part of the brick may be cut off. The cutter 3 is of substantially the same width as the brick 5 is thick, and when in use usually rests on the side edge of the brick as shown in the drawing. The cutter 3 is provided with an upwardly extending projection 6 that acts as an anvil against which a hammer strikes when the cutter functions. A pair of slots 7 are formed in the cutter 3 of a desired length whereby the cutter may slide along the face 8 of member 2 as far as desirable when struck a blow with a hammer or other instrument. The slots are so positioned that the pins 9 are engaged by the lower walls 10 and thereby support one end of the body 1 above brick 5, thus causing the cutting edge 4 to project a short distance below body 1. Also this arrangement causes the surface 8 to be at angle other than a right angle to the surface 11 of brick 5. Pins 9 may be bolts, if desired, and extends through the member 2, slots 7, and through the walls of the band or loop 12. The band or loop 12 is rectangular and is secured at 13 and 14 to member 2 by spot welding or other suitable means. It will be understood that the entire device is preferably made from metal and the parts are made of suitable thickness and strength to perform the various functions set forth. The member 2 and band 12 form what may be termed a guide or a guiding socket wherein the cutter 3 reciprocates within the limits provided by slots 7.

Body 1 is provided with a slot 15 which extends from near member 12 to near the opposite end of the body and accommodates the pin 16 forming part of the abutment 17. Also body 1 is provided with a number of graduations 18 for permitting a person to regulate the length of the cut made. Abutment 17 is slidably mounted on body 1 and may be moved from one end of the slot 15 to the other. Abutment 17 is formed with a contact plate 19 of sheet metal which is bent to form sides 20 and 21, which sides merge into the respective ears 22 that slidingly fit against the two outside edge surfaces of body 1. In addition, the members 20 and 21 are provided with turned-in members 23 and 24 (Figs. 1 and 2) that fit over the bottom of the body 1 to prevent tilting of member 19. The rod or bar 16 is welded or otherwise secured to member 19 and extends through slot 15. This bar is surrounded by a washer 25 on which rests one end of the spring 26, which spring extends into a socket 27 in the handle 28. The action of the spring 26 is to continually tend to cause the edge 29 of member 19 to fit into one of the notches 30 formed in the bottom part of body 1. The handle 28 is screwed on to the bar or pin 16 and consequently the tension of the spring may be adjusted Also the handle may be screwed until it presses

tightly against washer **25**, whereupon the abutment is locked against movement.

When the device is to be used and it is desired to cut off one inch from one end of the block **5**, the abutment **17** is moved one inch to the left as shown in Fig. 1 along the graduation **18**. The instrument is then placed in position as shown in Fig. 1 and then a hammer is used to strike the anvil **6**. This will cause the cutter to function in the desired way. In case a fine or vernier adjustment is desired, the screw **31** is rotated to the desired extent.

In Figs. 4 and 5 a slightly modified structure is disclosed wherein there are provided a pair of side plates **32** and **33** secured to or formed integral with body **1** at the ends. Slots **35** and **36** separate the plates **32** and **33** from body **1** for almost the entire length of the body so that the ears **20** and **21** may freely slide. A number of protuberances **34** are provided on the lower surface of plates **32** and **33**. The protuberances are preferably rubber so as to resiliently hold the parts in the position shown in Fig. 4. It will be noted that in this form of the invention as well as the preferred form a plurality of pins or bolts **9** are used whereby the cutter may freely slide but can not twist so that the cutting edge always engages the brick or block for the full length of the cutting edge.

I claim:

1. An instrument for cutting bricks into lengths comprising a body having an upstanding member at one end, an abutment slidably mounted on said body, and a cutting member carried by said upstanding member, said cutting member functioning in a direction substantially normal to said body.

2. An instrument of the character described comprising an elongated body, an upstanding member at one end of said body, a guide carried by said upstanding member, a cutter slidably mounted in said guide functioning in a direction substantially normal to said body, and an adjustable abutment mounted on said body for regulating the length of cut.

3. An instrument for cutting a brick into sections comprising a rectangular body longer than it is wide, an upstanding member at one end of said body, an abutment movable along said body to regulate the size of said sections, a cutter, and means including said upstanding member for guiding said cutter when the instrument is functioning.

4. An instrument for cutting a brick for dividing the brick into two sections, a body much longer than it is wide, an abutment slidably mounted on said body, said abutment being provided with means interlocking with the body for locking the abutment against sliding movement, a cutter, and means connected to said body at one end forming a socket for guiding said cutter when it functions.

5. An instrument for cutting a brick into lengths comprising a rectangular body much longer than it is wide and formed with one end upturned, a band secured to said upturned end and with said end forming a guide, a cutter slidably mounted in said guide, means for normally preventing the cutter from moving out of said guide, and an abutment adjustably mounted on said body.

6. In an instrument for cutting bricks into lengths including a body having an upturned end, a band secured to said end and with said end forming a cutter guide, a cutter slidably mounted in said guide, said cutter having a slot, and a member carried by said end and said band extending through said slot to prevent said cutter leaving said guide.

7. An instrument for cutting bricks into lengths comprising a metallic body having straight sides and a straight bottom, an upstanding member at one end of said body, means for holding raised the end of the body carrying said upstanding member, a cutter mounted to slide while in contact with said upstanding member, said cutter and upstanding member being held by said means at an angle other than a right angle, and an abutment having a pair of depending ears engaging the sides of said body, said abutment being slidably mounted on said body, said body being provided with graduations for indicating the respective lengths to be cut.

8. An instrument for cutting bricks into lengths comprising a rectangular body longer than it is wide and provided at one end with an upstanding member extending substantially normal to said body, a pin projecting from said upstanding member in a direction normal to the upstanding member, a cutter carried by said upstanding member, said cutter being provided with a slot for accommodating said pin, said slot being of a length and so positioned to allow said cutter to slide, the bottom of the slot being positioned in respect to the cutting edge of the cutter and the bottom surface of said body that said cutting edge will normally project below said body when the instrument is resting on a brick and will also cause the cutter to be at an angle in respect to said brick different from a right angle, means carried by said upstanding member for guiding said cutter as it slides, and an abutment slidably mounted on said body for regulating the length of cut.

9. An instrument for cutting bricks into lengths including a body, a cutter at one end of said body and an abutment slidably mounted on said body, said body having graduations thereon for guiding a person in setting said abutment, said abutment being provided with means for locking the abutment to the body, and an adjustable screw for giving a vernier adjustment of the instrument in respect to a brick to be cut.

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