Aug. 7, 1951 L. H. COOTS 2,563,674

UTILITY TAPE

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Fig. 1.

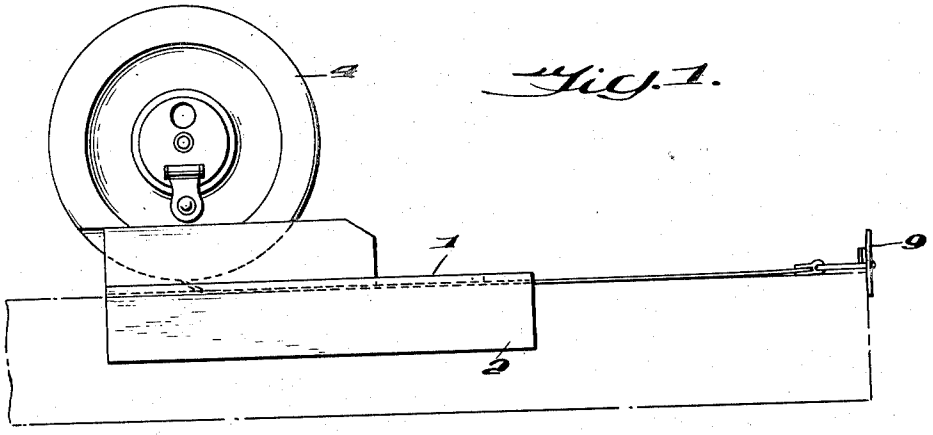


Fig. 2.

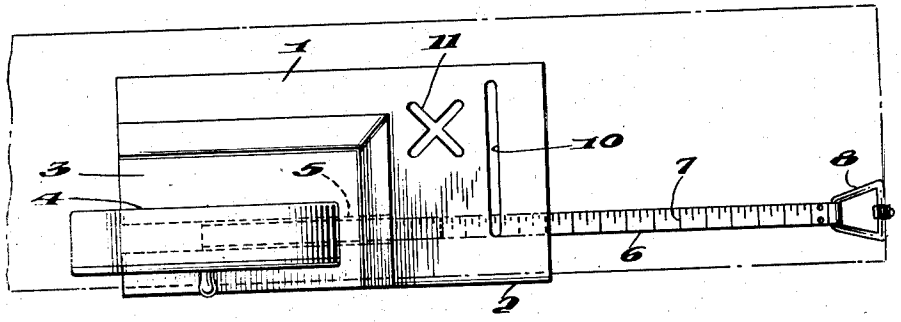


Fig. 3.

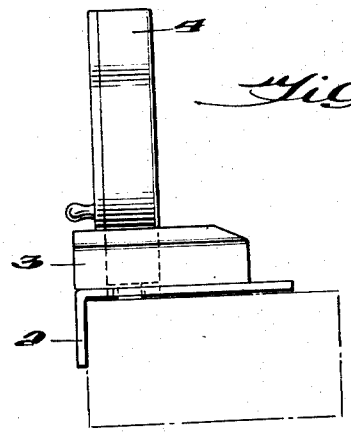
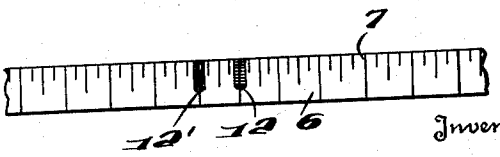


Fig. 4.



Inventor

LAWRENCE H. COOTS,

By J. Preston Swecker

his ATTORNEY

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UTILITY TAPE

Laurence H. Coots, Pine Beach, N. J.

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2 Claims. (Cl. 33—75)

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This invention relates to improvements in utility tapes of the character used by builders and masons, especially for spacing the studs on a frame building or the laying-out of building blocks.

It is customary in erecting buildings that use wooden frame construction to support the studs on a plate or sill along which the studs are spaced ordinarily on sixteen-inch centers. It has been customary heretofore to mark the spacing of the studs along the plate or sill by starting at one corner of the building and by using the usual carpenter's square and a pencil to mark each individual unit or sixteen-inch center in this manner, spacing these one from another. This is not only time-consuming but is very inaccurate. Almost invariably on checking at the end of the plate or sill, it will be found that the spacing may be as much as one-half inch away from accuracy, due to the consecutive placing of the square and the thickness of the pencil point.

One object of this invention is to provide a complete and accurate device for laying off building units very quickly and to eliminate the cumbersome and inaccurate practice used heretofore for this purpose.

Another object of the invention is to improve the construction of utility tapes and the mounting thereof to provide for the use of such tapes in laying off building units, such as the spacing of the studs of a building or the spacing of building blocks much faster and more efficient and accurate than has been possible heretofore with devices ordinarily employed.

These objects may be accomplished according to one embodiment of the invention by providing a base on which the tape is mounted, which base has provision for guiding it along the plate or sill of the building and withdrawing the tape from the reel, and using the latter to mark off the desired spacings along the plate or sill. The base, preferably, has a marking edge such as a slot therein, opposite the tape, to permit the accurate placement of the line for the edge of the stud or block, and an appropriate indication may be made on the plate or sill to indicate the side of the line on which the stud or block is to be located.

This embodiment of the invention is illustrated in the accompanying drawings, in which:

Fig. 1 is a side elevation of the device shown in place on a plate or sill;

Fig. 2 is a top plan view thereof;

Fig. 3 is an end elevation thereof; and

Fig. 4 is a plan view of a portion of the tape, showing the indicia applied thereto.

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The invention is shown in Figs. 1 to 3 as applied to a plate or sill, generally designated at S, for the purpose of laying out the spacings therealong on which studs or blocks may be mounted. However, it will be understood that the utility tape shown as an embodiment of the invention may be used for other purposes and in different locations than that here illustrated.

In this embodiment the utility tape comprises a base, generally designated at 1, which has a guide 2 thereon adapted to be guided along the edge of the plate or sill S. In the form illustrated, the base 1 is composed of a sheet of suitable material, such as steel or plastic, and may be transparent plastic or have a transparent window therein. In this event the edge of the sheet is turned over at right angles thereto, as shown in Fig. 3, to form the guide 2.

Secured upon the base 1 is a support 3 which may be in the form of a wooden block permanently secured to the base. A tape reel 4 is secured rigidly on the support 3. This reel 4 may be of the usual character provided for flexible tapes, and either permanently or detachably mounted on the support 3.

The plate 1 and support 3 are provided with registering slots therein, generally designated at 5, through which the tape 6 may be withdrawn from the reel 4, passing under the base 1 in the embodiment illustrated, although it may extend through a slot therein, if desired. The tape 6 is of the usual flexible metal tape customarily provided and used by carpenters and other artisans and having the usual indicia 7 on the face thereof to designate inches and feet in the customary manner. At the end of the tape 6 a ring 8 is secured, having a transverse catch 9 pivotally mounted thereon in a well-known manner. This catch 9 is adapted to hook over the end of the plate or still S to facilitate the laying-off of the tape along the length of the sill.

The base 1 is shown as provided with a transverse slot 10 therein, beneath which the tape 6 extends, and a cross slot 11 is provided in the base 1 at one side of the slot 10. If the base 1 is not formed of transparent material, it is preferable to use a transparent window around the slot 10 to facilitate inspection of the tape as the latter is drawn out under the slot.

The tape 6 is provided, preferably, with suitable indicia at spaced intervals therealong to register with the slot 10 and to indicate thereby the location of the studs or the edges of the blocks. As shown in Fig. 4, I have provided markings located at sixteen-inch centers, generally as indicated at 12, to designate the spacing of the studs along the

plate or sill. Additional markings are shown at 12', preferably located sixteen and one-quarter inches apart, to indicate the spacing of the blocks while allowing for mortar therebetween. Either or both of these or of other indicia may be used as desired, and in either event will facilitate the laying-off of the desired measurements for the building construction.

It is the customary practice to locate studs in a building on sixteen-inch centers. It is the practice to mark the edge line for the stud and to mark on the sill by "X" the side of this line on which the stud is placed. Thus it is possible to start at one end of the plate or sill S and to mark accurately along the length thereof the location of the respective studs by measuring from the end with the tape. The catch 9 may be hooked over the end of the sill S, and the reel device moved along the sill while the marking progresses successively. The first section of tape should have the red mark 12 located at nineteen and one-eighth inches from the end of the tap to allow for the thickness of the corner post, so that the consecutive spacing (of 16 inches) will be just right for the placing of sheet rock or rock lath will center on any consecutive studs as they come in 4 foot lengths, although this distance may be varied considerably under different building conditions.

When the mark 12 registers with the slot 10, the builder can mark directly on the sill along the edge of the slot 10 an elongated mark to indicate the placement of the edge of the stud. At the same time he can mark through the cross slot 11 an "X" on the sill to indicate the location of the stud on that side of the line. This may continue progressively along the length of the plate or sill until the location of the studs has been completed throughout the length thereof. This manner of designating the location thereof simplifies the process and enables it to be completed much faster and more accurately than has been possible heretofore with an ordinary carpenter's square.

The same principle may be used in laying out the location of building blocks, whether these be of cement or cinder blocks, in building a wall. The indicia 12', which is of a contrasting color as compared with the indicia 12, being respectively white and red, may be used for this purpose. In one example such blocks are of sixteen-inch length and usually have one-quarter inch mortar therebetween. Consequently, the spaces between the indicia 12' should be sixteen and one-quarter inches. Using these white marks 12', the builder proceeds in the manner described above to indicate the location of the blocks along the length of the sill.

When a mason lays out a block wall for a house, he has a problem of spacing the blocks so that an even number of blocks may be used or a half-block at the end of the row. By measuring off with this tape the length of the wall, the indicia 12' will indicate whether or not an even number of blocks may be used, or perhaps a half-block at the end, or whether he must increase or decrease

the amount of mortar used in the joints in order to have the number of blocks correspond with a uniform and desired practice.

The tape may be used in other building operations, but in any event these may be simplified and speeded up to a considerable extent as compared with the practice in use heretofore.

While the invention has been illustrated and described in one embodiment, it is recognized that variations and changes may be made therein without departing from the invention, except as specified in the claims.

I claim:

1. A measuring device comprising an elongated base having a depending flange thereon forming a guide along one edge thereof, said base having a transverse slot therein adjacent one end to form a marking edge, a support secured rigidly to the base, a reel fixed on said support in rigid relation thereto, said base and said support each having a slot formed therein and communicating with each other, and a flexible metal tape having indicia thereon connected with the reel and extending lengthwise under the base through said communicating slots and beneath the transverse slot in position for registering of the indicia with the slot to indicate the location of a marking portion in the slot.

2. A measuring device comprising an elongated base having a depending flange thereon forming a guide along one edge thereof, said base having a transverse slot formed therein adjacent one end of said base and forming a marking edge, a support secured rigidly to said base, a reel fixed on said support in rigid relation thereto, said base and support each having a slot formed therein and in communication with each other, each of said last named slots being perpendicular to said flange, and a flexible metal tape having indicia thereon connected with the reel and extending lengthwise under the base through said communicating slots and beneath the transverse slot in position for registering of the indicia with the slot to indicate the location of a marking portion in the slot.

LAURENCE H. COOTS.

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