

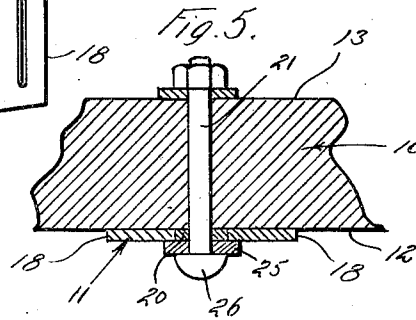
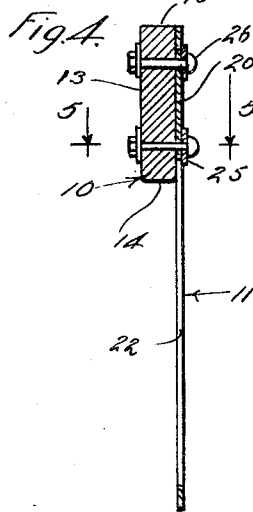
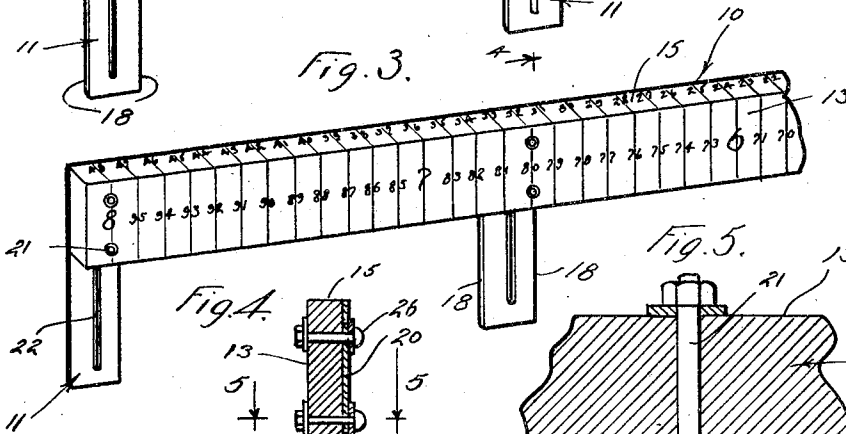
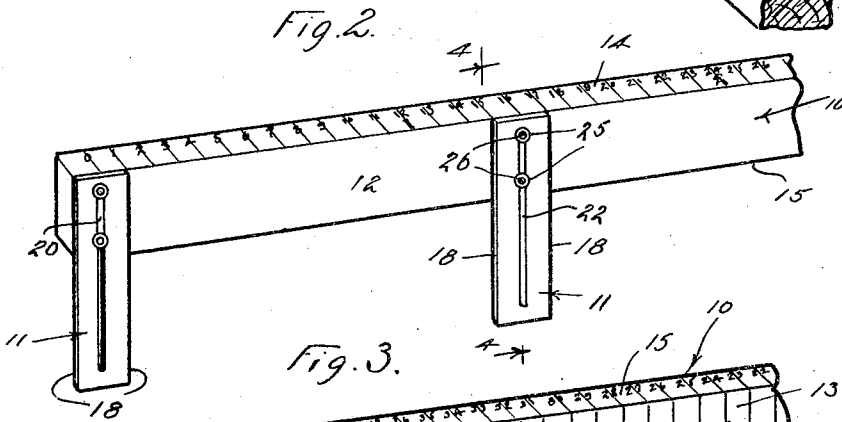
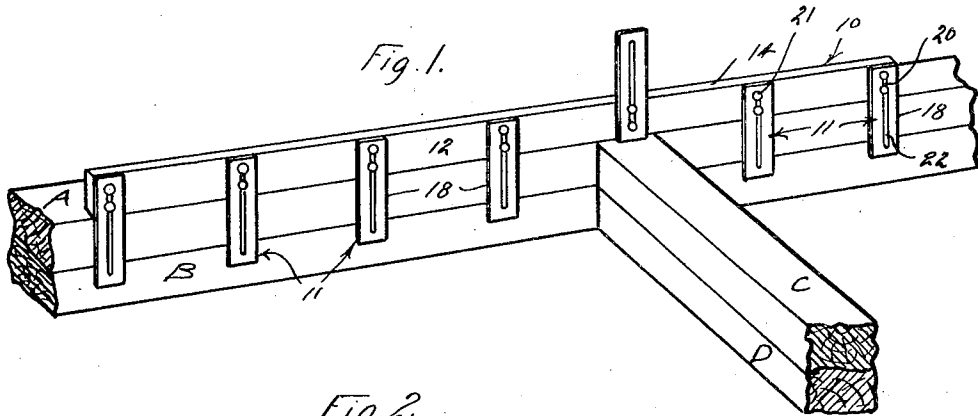
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F. BITTNER

MARKING TOOL

Filed Feb. 3, 1927



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UNITED STATES PATENT OFFICE.

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MARKING TOOL.

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This invention has to do with a tool and it is a primary object of the invention to provide a marking tool useful in laying out building frames, and the like.

5 In the following standard construction, wooden buildings are constructed with frames in which the studs or upright members are spaced a certain distance apart. This is necessary in order that the studs receive standard laths without the necessity of
10 cutting the laths except to accommodate windows and features of the construction which, of course, cannot be avoided. In practice, the studs extend or are carried between
15 horizontal parts known as plates, and it is customary to lay the top and bottom plates together on the floor and lay them off or mark them at the points where they are to receive the studs. With the method now in
20 use, a carpenter ordinarily lays off the plates with a hand rule and square. By this method, the measurements for the studs are more or less inaccurate and many times the errors resulting from this method cause the studs
25 to be placed so that they do not properly and accurately receive the laths. Further, the method now in use is comparatively slow and it is many times difficult to properly locate windows and other structural features
30 in the framing.

It is a primary object of this invention to provide a tool to be used in marking or laying out plates for studding.

35 It is an object of this invention to provide a tool whereby the position of a number of studs can be obtained at a single setting of the tool.

Another object of the invention is to provide a tool operable in different positions.

40 The various objects and features of my invention will be best and more fully understood from the following detailed description of a typical form and application of the invention, throughout which description
45 reference is had to the accompanying drawings, in which:

50 Fig. 1 is a perspective view showing the tool provided by my invention arranged in position for operation on plates for a building frame;

Fig. 2 is an enlarged perspective view of a portion of the tool showing one side of the tool;

55 Fig. 3 is a view similar to Fig. 2 showing the other side of the tool;

Fig. 4 is an enlarged, detailed, sectional

view of the tool, taken as indicated by line 4—4 on Fig. 2; and

Fig. 5 is an enlarged, detailed, sectional view, taken as indicated by line 5—5 on
60 Fig. 4.

The tool provided by this invention may be used to advantage in various situations. It is, however, particularly suited for use by carpenters in the construction of frame or
65 wooden structures and specifically in marking plates for studs. I will, in this disclosure, make particular reference to the invention in a form to be used by carpenters for the use stated, it being understood that such
70 disclosure is not to be construed as limiting the broader principles of the invention.

The tool includes, generally, an elongate body 10, and a plurality of arms 11 carried
75 by the body. The body 10 is preferably in the form of a wooden strip rectangular in cross-sectional configuration, so that it presents opposite sides 12 and 13 and opposite
80 edges 14 and 15. I may make the body of any desired length and I may provide it with suitable marks or graduations. I have found it convenient in practice to make the body slightly over eight feet in length and
85 to provide scales or markings on both of its edges 14 and 15 and on one of its sides 13. In the particular case illustrated in the drawings, I have shown the edge 14 of the body marked off or graduated in inches and feet and have shown the graduations on this
90 part of the body starting from a point adjacent one end of the body. I have shown the edge 15 marked off or graduated in inches, the inches being numbered in both directions from the center of the body. The
95 side 13 of the body is marked off in inches and feet so that the scale runs in the direction opposite to that on the edge 14 of the body. It is to be understood, of course, that the inch marks may be further divided into
100 halves, quarters, eighths, etc., as desired.

The arms 11 provided on the body are arranged in definite spaced relation on the body and are mounted so that they can be positioned to project from either edge of
105 the body. The arms are carried on one side of the body, for instance, on the side 12 and are slidably connected with the body for limited movement transversely thereof. The arms are preferably in the form of metal plates of suitable width and having straight
110 parallel edges 18. The plates forming the arms are mounted transversely on the body

so that their edges 18 are at right angles to the edges of the body. In ordinary house construction, the studs employed are two inches in thickness. Therefore, I prefer to
 5 make the arms two inches in width so that lines drawn along the two sides of an arm will form marks between which a stud can be accurately placed. It is obvious, of course, that the width and proportioning of
 10 the arms may vary with the class of work for which the tool is intended.

The means provided by my invention for mounting the arms on the body includes, generally, guide members 20 which engage
 15 the arms to guide them in their movement with reference to the body, bolts 21, or the like, which are carried by the body 10 and extend through slots 22 formed in the arms, and washers 25 which are carried on the bolts
 20 21 to retain the arms in position on the body. In the preferred construction, each arm 11 is provided with a central longitudinal slot 22 which slidably receives an elongate guide member 20 mounted on the side
 25 12 of the body 10. The guide member 20 is disposed transversely of the body and thus holds and guides the arm in the desired position transversely of the body. In the particular construction shown in the drawings,
 30 two bolts 21 extend through each guide 20 and the body 10 to hold the guide in proper position on the body, and a washer 25 is arranged under the head 26 of each bolt to hold the arm against the side 12 of the body
 35 and in proper position on the guide 20. In practice, I prefer to punch the slots 22 in the arms and I may utilize the material removed in the formation of the slots in forming the guides 20. I provide a sliding fit
 40 between the guides and slots so that the arms will readily or freely slide transversely of the body. It is to be noted that the arms are considerably longer than the body is wide and, therefore, project beyond the
 45 edges of the body. When the body is arranged in an upright position, that is, on one of its edges, all of the arms will immediately drop to position where they project downwardly from the lower-most edge of
 50 the body in the manner clearly shown throughout the drawings. It is to be noted that the slots formed in the arms are comparatively long, thus allowing the arms to project a substantial distance from the body
 55 sufficient to allow the tool to be operated as hereinafter described.

From the foregoing description, it will be obvious how the tool may be used to advantage in various situations and in various
 60 manners. In Fig. 1 of the drawings, I have illustrated the tool arranged for use in connection with plate members A and B. The

tool is arranged with one edge of its body resting on the top of the uppermost plate A adjacent the edge of the plate A so that the
 65 arms are free to drop down at the sides of the plates A and B. In the particular case illustrated in the drawings, other plates C and D are arranged in connection with the plates A and B and occur at a point opposite one of the arms of the tool. In this
 70 case, the arm occurring opposite the plates C and D remains in an up position, as shown in Fig. 1, so that the presence of studs C and D does not interfere with the operation
 75 of the tool. With the tool placed on the plates A and B, as shown in Fig. 1, the locations for the studs may be applied to the plates by marking the plates along the edges 18 of the several arms extending down at the
 80 sides of the plates. It will be apparent how the various markings on the body enable a carpenter to readily calculate distances or spaces for windows and other structural features. With the particular tool illustrated
 85 in the drawings, the position of seven studs can be marked on the plates at one operation or one setting of the tool. It will be obvious that the tool can be used to space or extend over spaces or gaps in the plates so
 90 that the proper spacing of the marks can be established at each side of the gap.

Having described only a typical preferred form of my invention, I do not wish to limit myself to the specific details set forth, but
 95 wish to reserve to myself any changes or variations that may appear to those skilled in the art or fall within the scope of the following claims.

Having described my invention, I claim: 100

1. A tool of the character described including, an elongate body, a plurality of arms each having a longitudinal slot, and means mounting the arms transversely on the body to slide freely transversely of the
 105 body including guides fixed transversely on the body and slidably fitting the slots in the arms.

2. A marking tool of the character described including, an elongate body, a plurality of arms each having a longitudinal slot, and means mounting the arms transversely on the body in fixed spaced relation longitudinally of the body including guide parts slidably fitting the slots in the arms, and bolts mounting the guide parts in fixed transverse position on the body and retaining the arms in operating position with reference to the guide parts with said parts
 110 slidably fitting the slots in the arms. 115

In witness that I claim the foregoing I have hereunto subscribed my name this 18th day of January 1927. 120

FREDWILL BITTNER.