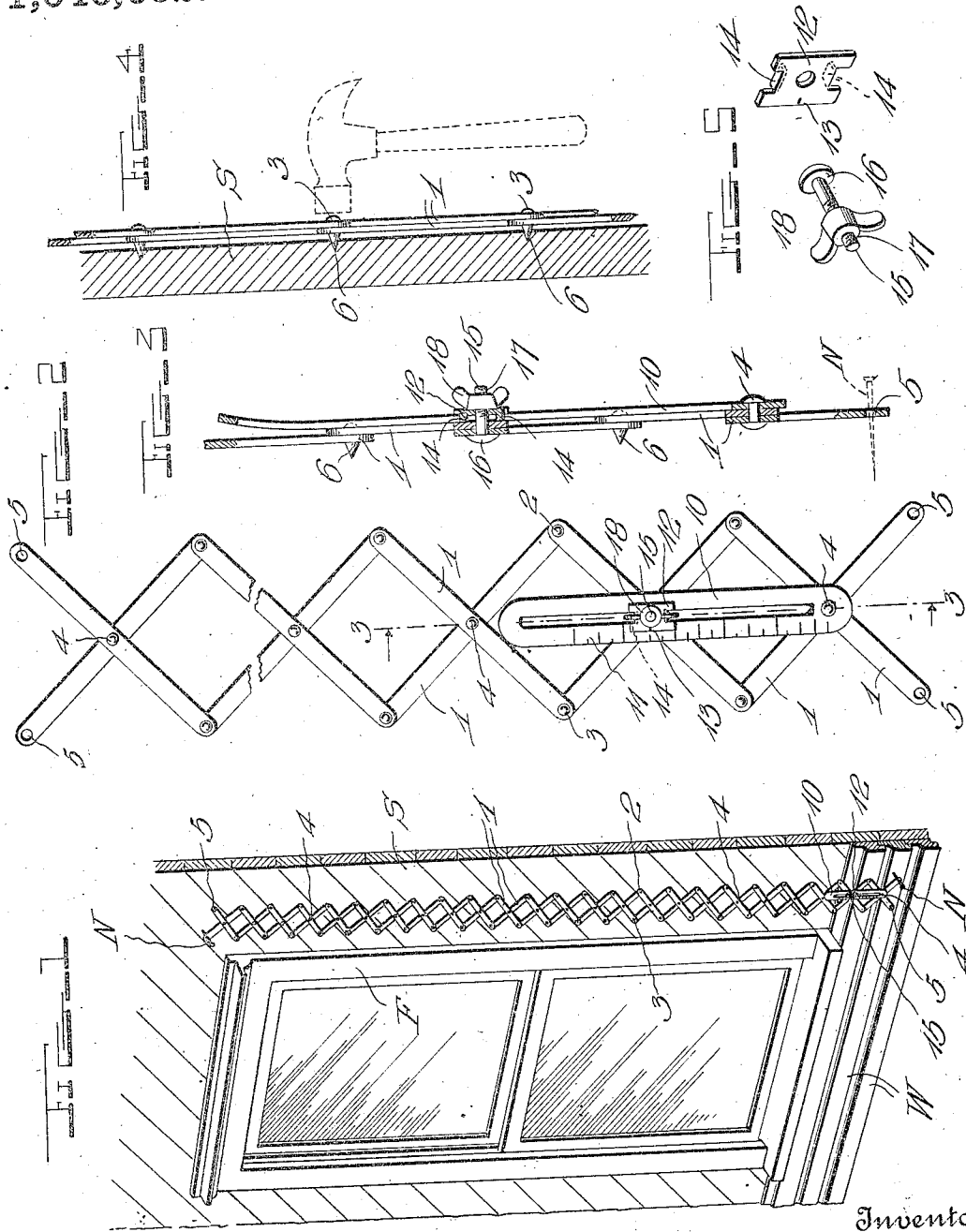


M. NESHEIM.
SPACING TOOL.
APPLICATION FILED NOV. 27, 1911.

Patented Dec. 10, 1912

1,046,632.



Inventor

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Witnesses

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UNITED STATES PATENT OFFICE.

MARTIN NESHEIM, OF COUNCIL BLUFFS, IOWA.

SPACING-TOOL.

1,046,632.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, MARTIN NESHEIM, a citizen of the United States, residing at Council Bluffs, in the county of Pottawattamie and State of Iowa, have invented certain new and useful Improvements in Spacing-Tools; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to measuring instruments, and more especially to those used for spacing; and the object of the same is to provide a device of this character of the lazy-tong type whereby any given area within limits can be quickly marked with a series of equi-distant points. This and other objects are carried out by the construction hereinafter more fully described and claimed, and as shown in the drawings wherein—

Figure 1 is a perspective view of a portion of the side of a house adjacent a window, to whose sheathing boards it is desired to apply weather boards, showing the use of my improved tool in this connection; Fig. 2 is an enlarged elevation of the lower end of this tool; Fig. 3 is a vertical section on the line 3—3 of Fig. 2; Fig. 4 is an edge view showing one of the side pivots; Fig. 5 is a perspective detail of the locking set screw and its washer.

In Fig. 1 of the drawings I have illustrated one of the many uses to which this invention may be put. Herein is shown a portion of a frame house structure wherein S designates the sheathing boards beside a window frame F, and W the weather boards which are being nailed over the sheathing alongside said frame. To make a neat job the carpenter or builder desires to overlap the weather boards to such an extent that the upper edge of one board will pass under the sill of the window frame and the lower edge of another board higher up will pass over its cap, and in order to do this he must space the boards alongside the frame F so that the desired end may be attained. This is but one illustration of many uses to which this invention may be put, but it calls for an instrument whose links or members carry points whereby indentations may be made in or marks upon woodwork or other substances at points which are ever equi-distant from each other but which may be made

to vary in their intervals to suit different occasions.

Coming now to the specific construction of the instrument in question, the numerals 1 designate a series of links pivotally connected at their outer end by side pivots 2 and 3 and along their centers where they cross each other by main pivots 4, thereby making up a lazy-tong structure of as great length as may be desired and of such materials and proportions of parts as may be consistent with the range or scope of the instrument. The outer extremities of the lowermost links and of the uppermost links are preferably provided with eyes 5 instead of pivots, through which eyes nails N may be inserted when the device is used as shown in Fig. 1. The side pivots may be of any suitable type, but their inner ends are pointed as shown at 6, preferably in the shape of blunt cones of metal, their outer ends being headed up so that they may be driven upon as by a hammer to indent the points into the sheathing board—see Fig. 4. In the use of the instrument as thus far described, the lazy-tong structure is opened up alongside of the window frame F as seen in Fig. 1, and nails N inserted through certain of the eyes 5 at top and bottom thereof, when it will be found that the side pivots are all equally separated from each other along each edge of the structure; and thereafter the carpenter or builder strikes the head of each pivot along one row a rap or blow with a hammer, and the result is that indentations are made in the sheathing board S which will readily guide him in the putting up of the weather boards W. The indentations are all spaced apart an equal distance, and the desired result may be attained without the use of any measuring instrument, any tool but an ordinary hammer, or any mental calculation, and but little time will be consumed.

It is frequently desirable that the points in a tool of this character shall be set at a certain distance apart, so that after having once been used as above described the tool may be removed to a remote place for further use and the gage will be duplicated there. In order, therefore, to hold the lazy-tong structure when it has been distended as above described, I make use of a slotted link 10 mounted pivotally at one end upon one of the main pivots 4 and overlying one of such pivots adjacent, its outer face being

provided with a scale 11; and a special form of set screw best illustrated in Fig. 5. The same consists of a washer 12 whose general contour is preferably square, and one edge of which may have a mark 13 moving over the scale 11, while at top and bottom the material of this washer (which is preferably of metal) is cut out into two tongues 14 which are deflected to the rear so that they will engage loosely in the slot in the link 10. Coacting with this washer is a special form of set screw which comprises a shank 15 of a size to pass through the slot in the link and the hole in the washer, a head 16 at its lower end larger than the width of said slot, and threads 17 at its upper end; and engaging with said threads is a winged nut 18 which may be screwed down onto the washer to hold all parts in place. With this device attached to the lazy-tong structure above described, when the latter is opened out as best seen in Fig. 1 all the main pivots 4 are separated, and as the special form of set screw takes the place of one of said pivots it is carried upward and with it moves the washer 12 along the scale 11. The latter will be specially designed with reference to the proportion of parts of the instrument, and will indicate the distance apart of the various points or cones 6 as the mark 13 comes over the graduations on the scale 11. Having opened out the lazy-tong structure as far as necessary, the set screw is tightened and the uppermost nail N may not be necessary although it is preferably employed to hold the instrument steady. As above described, the carpenter then pounds upon

the outer end or head of each of the points 6 so as to make a series of indentations in the sheathing board, after which all nails N are taken out and the instrument can be carried to another place for repeating the spacing, and a second line of indentations made identically like the first if the set screw be permitted to remain tight. Finally this set screw and the slotted link may be useful in holding the device folded or housed when it is to be stored away in the tool box.

What is claimed as new is:

The herein described spacing tool comprising a lazy tong structure the end links of which have their outer extremities disconnected and provided with openings, pivots hingedly connecting the remaining extremities of the links and provided with pointed ends, main pivots connecting the links where they cross, a slotted link one end of which is mounted on the main pivot at one end of the lazy tong structure, a washer slidably mounted upon the link and having an indicating mark for register with a scale upon said link, tongues projecting from the opposite ends of said washer and adapted for sliding engagement with the link, and means for adjustably clamping said washer and link to another main pivot of the structure.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

MARTIN NESHEIM.

Witnesses:

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A. T. FLICKINGER.