P. L. REEDER.

COMBINED PITCH GAGE.

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1,269,509.

Patented June 11, 1918.

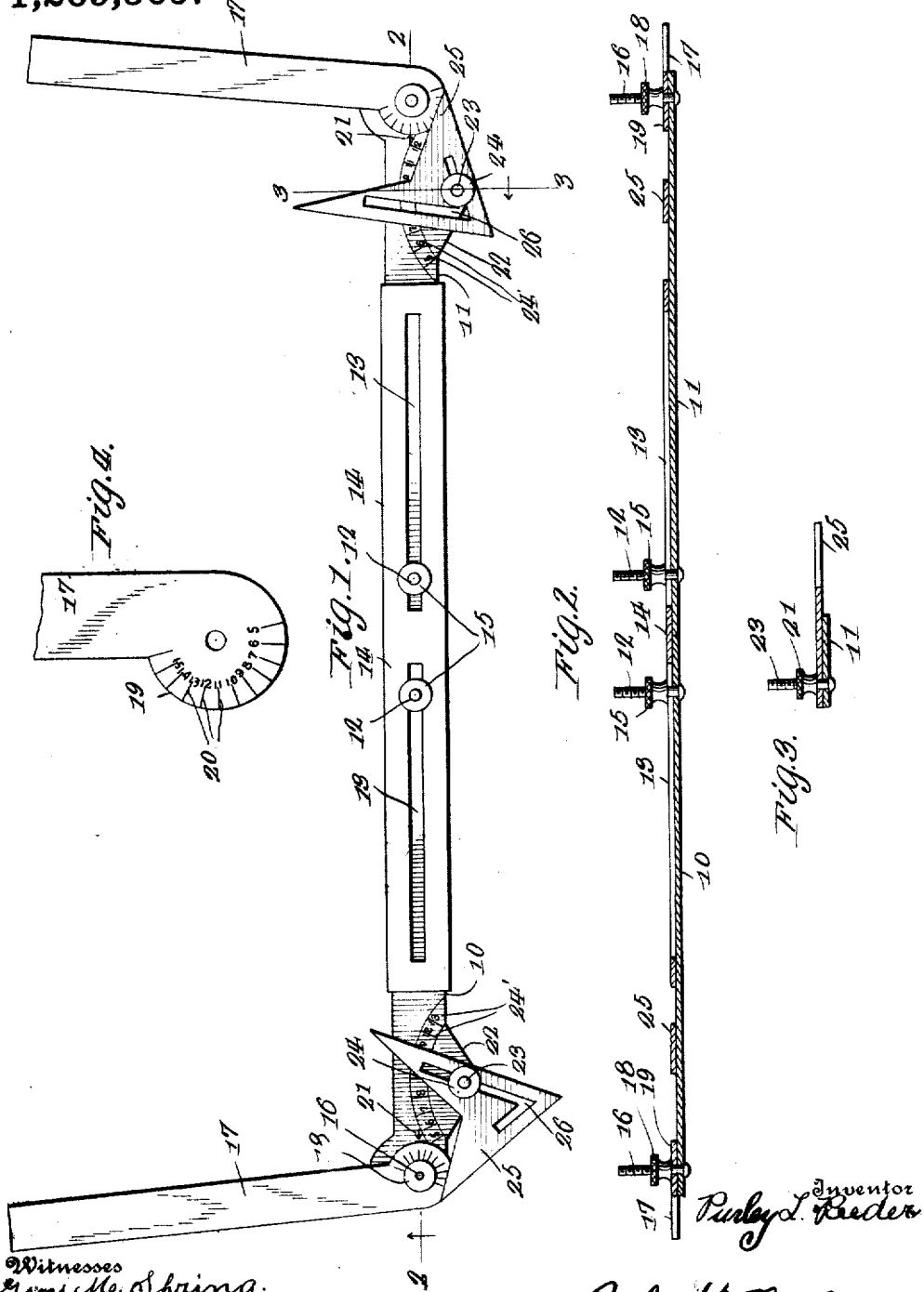


Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Witnesses
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COMBINED PITCH-GAGE.

1,269,509. Specification of Letters Patent. Patented June 11, 1918.

Application filed July 27, 1915. Serial No. 42,198.

To all whom it may concern:

Be it known that I, PURLEY L. REEDER, a citizen of the United States, residing at Alton, in the county of Madison and State of Illinois, have invented certain new and useful Improvements in Combined Pitch-Gages, of which the following is a specification.

The present invention relates to a new and improved carpenter's tool in the form of a gage, the principal object thereof being to enable the operator to ascertain almost instantaneously the correct angle at which a rafter used in the construction of a roof is to be cut (including the top and the base cut) and likewise the angle at which the jack rafters are to be cut; the result being accomplished by simply setting the several parts of the tool according to the rise of the rafters per foot.

More specifically, the gage comprises a body having pivoted arms at each end so that movement of the arms is indicated by certain graduations so that, for instance if there is a rise of the rafters approximately eight inches to the foot, by setting the arms so that the numeral 8 thereon coincides with the index on the body the correct inclination at which the rafters are to be cut is ascertained.

A still further object is to provide a device of the type in question which, being extremely simple in construction, it is believed that the same may be manufactured and sold at a comparatively low cost. Various other objects and advantages will become apparent during the continuance of the following description.

The above and other objects which will become apparent, are accomplished by such means as are shown in their preferred form in the accompanying drawings, described in the following specification and then more specifically pointed out in the appended claims.

In the accompanying drawings wherein like characters designate like parts throughout the several views;

Figure 1 is a plan view of my invention.

Fig. 2 is a longitudinal, sectional view taken on line 2—2 of Fig. 1.

Fig. 3 is a transverse sectional view taken on line 3—3 of Fig. 1.

Fig. 4 is a fragmentary view of an element used in connection with my invention.

In the drawings, the numerals 10 and 11 designate a pair of sections which form the body portion of my improved invention, and are preferably formed of sheet metal whereby they may be very durable and at the same time manufactured at a low cost. Each of the sections is provided with an upstanding fastening member 12 adjacent its inner end, which fastening members project through slots 13 in a connecting member 14 and through the coöperation of suitably milled nuts 15 provide for retaining the respective sections at certain adjusted positions. The said sections are also provided with rigid fastening members 16 adjacent their outer ends which pivotally support a pair of arms 17, nuts 18 being also provided to retain the said arms in various rigid positions.

Attention is now directed to the specific construction of the arms 17. Upon reference to Fig. 4 of the drawings it will be recognized that the same are enlarged at their lower ends as at 19 and provided with a series of graduations 20. When the said arms are adjusted, the degree of pitch is designated by the indicators 21 on the respective sections 10 and 11 whereby the operator may ascertain such degree of pitch at a glance.

The said sections 10 and 11 are further provided with depending extensions 22 which carry rigid fastening members 23 for the purpose that will presently appear. It will also be noted that suitable graduations 24 are provided on the respective sections adjacent such extensions and these graduations are provided for facilitating the ascertaining of the degree of pitch of the angular plates or gage elements 25 which are also provided.

The gage elements 25 above referred to are provided with a substantially V-shaped slot 26 for the reception of the fastening members 23 whereby the said plates may be quickly adjusted and held in a rigid position relative to the respective sections.

Each of the arms 17 has one side of its enlarged or rounded end suitably graduated and such graduations are properly identified by numerals, as indicated most clearly in Fig. 4, whereby provision is had for setting the arms according to a predetermined indication, such as the inclination of a rafter or other work when laying off the same. If the rise in a rafter is eight inches to the foot, one of the arms 17 is set so that the

graduation designated by the numeral 8 is opposite the index 21 on the element 10 or 11 and such arm is made secure by tightening the element 18. By placing the instrument on a rafter with the inner edges of the parts 10 and 11 against an edge thereof, and with the arm 17 extending along a side of the rafter, the proper angle may be laid off by drawing a line on the side of the rafter corresponding with the outer edge of the arm 17. This gives the correct angle upon which the upper end of the rafter is to be cut so as to lie snugly against a vertical side of the purlin. The remaining arm 17 may be set according to the required angle on which the lower end of the rafter is to be cut.

Should it be required to cut one or both ends of the rafter, on an angle transversely in order to hav the end of the rafter fit close against the purlin or like part when the rafter is not disposed at a right angle thereto, one or both of the plates 25 may be set with reference to the section 10 or 11. These plates 25 may be properly adjusted according to the transverse angle or bevel by having reference to the graduations 24′ on the respective parts 10 or 11. These graduations 24′ are formed on the arc of circles as clearly indicated in Fig. 1, and the plates 25 may be set with either edge in coincident relation with the graduation corresponding to the bevel or transverse angle, at which the rafter or other part is to be cut. The outermost edge of the plate 25 is generally utilized as the directing edge along which the marker is drawn when indicating the line of cut on the rafter or other work to be cut. To allow for a variety of adjustments of each of the plates 25, the latter are given a substantially V-form and having tapering ends, the edges of which are adapted to be utilized as directing edges. The slot 26 in each of the plates 25 is substantially of V-form to receive the threaded stud or like part 23 and which is adapted to enter either branch of the slot as indicated most clearly in Fig. 1.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In a gage of the character described, a pair of sections, means connecting said sections in movable relation to one another, an arm pivotally connected to the outer end of each of said sections, and a gage element adjustable independently of said arms on each of said sections, for the purpose specified.

2. In a device of the character described, a pair of sections, means adjustably connecting said sections, an arm pivoted to the outer end of each of said sections, each of said sections provided with a lateral extension, and a gage element movably mounted on each of said extensions, for the purpose specified.

3. A gage of the type specified, including a pair of oppositely extending sections, means for adjustably connecting the sections, an arm pivoted to the outer end of each of said sections, the lower ends of said arms being enlarged and provided with a series of graduations, said sections provided with indicators to coöperate with the graduations on said enlargements, an extension depending from each of said sections, said sections provided with suitable graduations in proximity to said extensions, fastening members carried on said extensions, and a gage element movably mounted on each of said extensions and coöperating with the graduations on said sections.

In testimony whereof I affix my signature in presence of two witnesses.

PURLEY L. REEDER.

Witnesses:
HAROLD CHAMBERLAIN,
GEO. M. HARTMANN.