No. 730,568. PATENTED JUNE 9, 1903.

W. POTTER.

COMBINATION CARPENTER'S TOOL.

APPLICATION FILED JUNE 17, 1902.

NO MODEL.

Fig. 1.

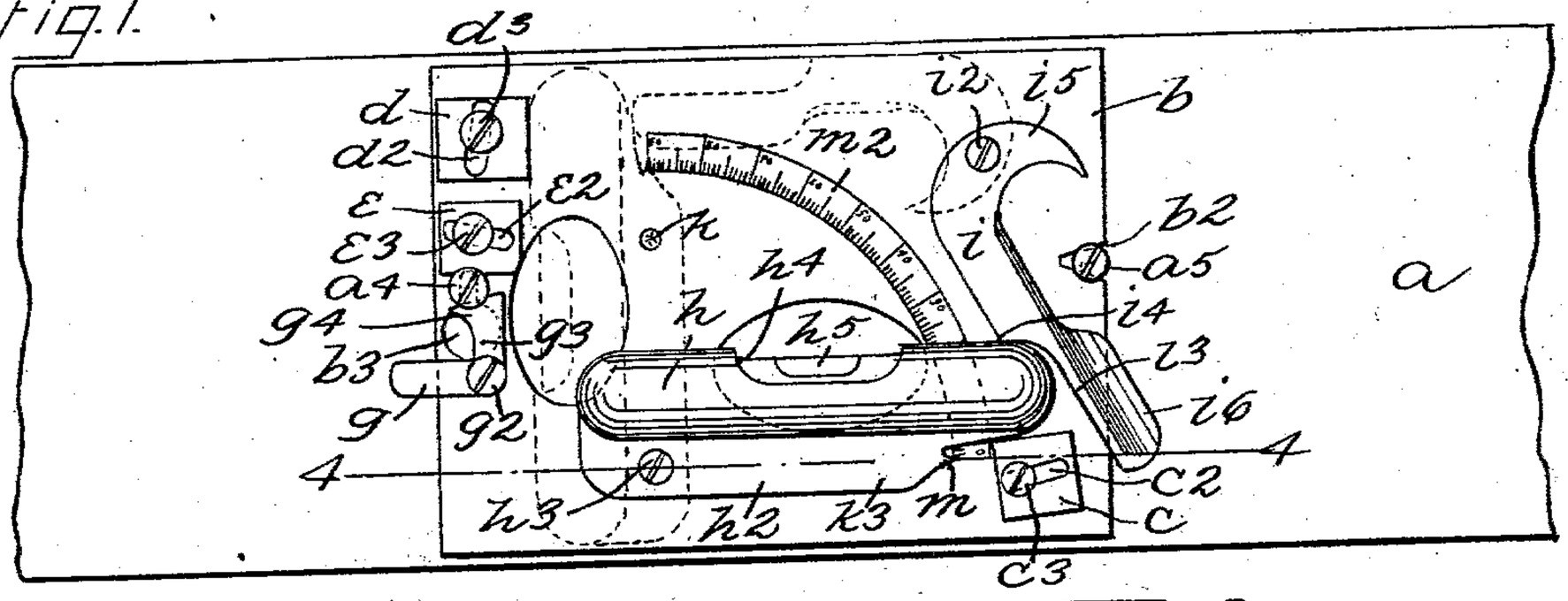


Fig. 2.

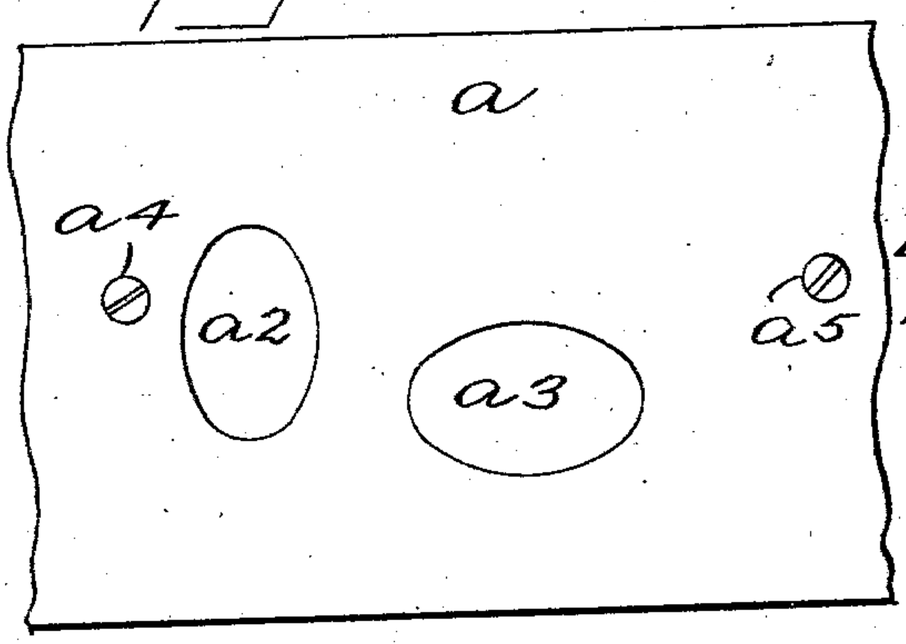


Fig. 3.

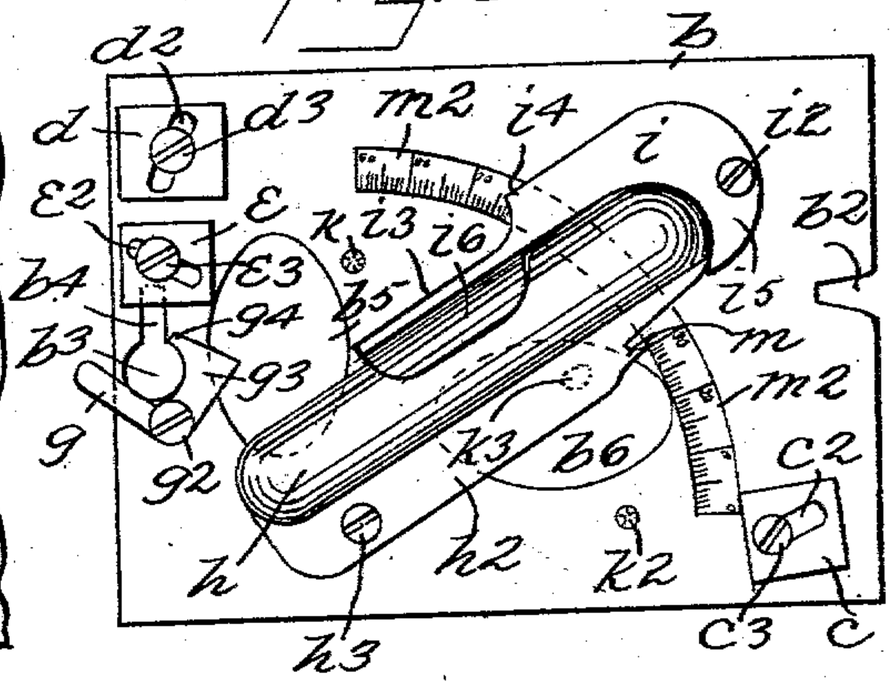
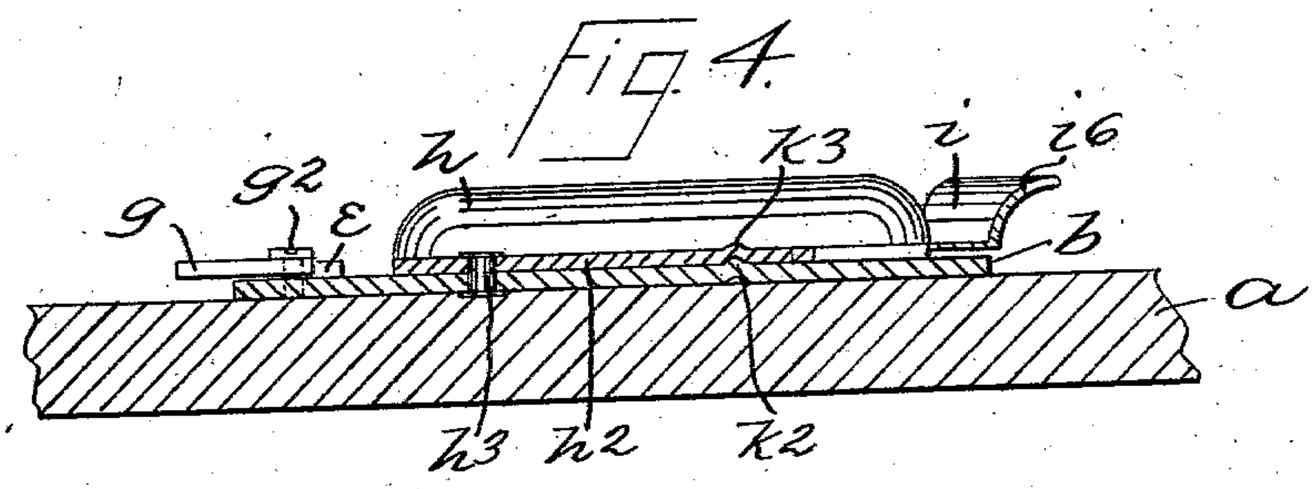


Fig. 4.



WITNESSES

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No. 730,568, Patented June 9, 1903.

UNITED STATES PATENT OFFICE.

WILLIAM POTTER, OF NEW YORK, N. Y.

COMBINATION CARPENTER'S TOOL.

SPECIFICATION forming part of Letters Patent No. 730,568, dated June 9, 1903.

Application filed June 17, 1902. Serial No. 112,046. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM POTTER, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Combination Carpenters' Tools, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

The object of this invention is to provide an improved combination-tool for use by carpenters and others and which is adapted to serve as a plumb, a level, a quadrant, and for other purposes; and with this and other objects in view the invention consists in a combination-tool of the class specified and constructed as hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated by the same reference characters in each of the views, and in which—

Figure 1 is a plan view of my improved tool, the ends of the body portion thereof being broken away; Fig. 2, a plan view of a part of the body portion with the operative member removed; Fig. 3, a similar view of the operative member detached from the body portion of the tool and showing the parts in a different position from that shown in Fig. 1; Fig. 4, a longitudinal section on the line 4 4 of Fig. 1.

In the practice of my invention I provide an ordinary straight-edge comprising an oblong bar or block a, which constitutes the body portion of the tool, and in this bar or block are formed two openings a^2 and a^3, said openings being preferably elliptical in form and being respectively arranged transversely and longitudinally of said bar or block, and said bar or block is also provided with two screws a^4 and a^5, which are firmly secured therein, preferably in the same horizontal line and preferably at the longitudinal middle of the said block or bar, and headed pins or similar devices may be substituted for said screws. I also provide a main plate b, which is rectangular in form and preferably a little less in width than the bar or block a and also preferably about four and one-half inches long, and said plate is provided in one end thereof—preferably the right-hand end, as shown in the drawings—with a notch or recess b^2, and at the opposite end with a circular opening b^3, having a transverse slot or extension b^4, which extends toward the upper or outer edge of the tool when the tool is held with the plate b facing the operator.

At the lower right-hand corner of the plate b is mounted a regulator consisting of a small metal plate c, preferably rectangular in form and provided with a diagonal slot c^2, through which is passed a headed pin, rivet, or screw c^3, which is firmly fixed in the plate b and the head of which bears on the plate c, so as to firmly hold it in any position in which it may be placed, and by striking the plate c on the outer or right-hand end it may be moved longitudinally of the plate b and toward the adjacent edge of the said plate, and by striking said plate c on the opposite end it may be moved toward the longitudinal center of the plate b and toward the adjacent end of the said plate.

With the upper left-hand corner of the plate b is connected another regulator, consisting of a small plate d, which is also preferably rectangular in form and provided with a diagonally-arranged slot d^2, through which passes a headed pin, rivet, or screw d^3, which is firmly secured in the plate b and which will hold the plate d at any desired adjustment, and by moving said plate d transversely and toward the opposite longitudinal edge of the plate b the said plate d will also be moved toward the adjacent end of the plate b, and by moving the plate d toward the opposite longitudinal edge of the plate b the said plate d will also be moved toward the adjacent end of the said plate b.

Between the regulator d and the circular holder-opening b^3 of plate b is mounted a lock-plate e, having a diagonal slot e^2, through which is passed a headed pin, rivet, or screw e^3, which is rigidly secured in the plate b, and this lock-plate e overlaps the slot b^4, which communicates with the circular opening b^3 in the plate b.

Connected with the plate b at g^2 is a lock-

lever g, having an angular extension g^3, provided with a finger g^4, which projects in the same direction as the lock-lever, and in connecting the plate b with the bar or block a the pin, rivet, or screw a^5 is slipped in the notch or recess b^2, and the opposite end of the plate b is placed against the block or bar a in such a manner that the head of the pin, rivet, or screw a^4 passes through the opening b^3, and said end of plate b is moved transversely of the block or bar a until the said pin, screw, or rivet a^4 enters the slot b^4, when the lever g is turned into the position shown in Fig. 1, in which operation the finger or projection g^4 passes beneath the head of said pin or screw and securely locks the plate to the block or bar a, and by adjusting the position of the lock-plate e the extent to which the pin or screw a^4 will enter the slot b^4 may be regulated, and the position of the plate b on the block or bar a may thus be exactly adjusted, it being understood that the pin or screw a^5 serves as a pivot on which the plate b may be turned. I also provide an ordinary spirit-level consisting of a tube h, having a base-flange h^2, by means of which it is secured to the plate b at h^3 by means of a rivet or screw secured in said plate, and said tube h is provided in one side with a longitudinal opening h^4 in the usual manner, and placed in the tube h is a glass tube h^5, which is partially filled with a liquid in the usual manner, and the tube h is adapted to be held in a horizontal position, as shown in Fig. 1, in which position the device will serve as an ordinary level, or said tube may be turned into a transverse position, as shown in dotted lines in Fig. 1, in which position the device will serve as an ordinary plumb. I also provide a lock-arm i, which is pivoted to the plate b at i^2, and this arm is provided with a longitudinal recess i^3 at its free end and with a shoulder i^4, which serves to hold the tube h in the horizontal position, as shown in full lines in Fig. 1, and when the two plates are in a transverse position, as shown in dotted lines in Fig. 1, the arm i may also be turned into the position shown in dotted lines in Fig. 1, and thus serve to hold said tube in said position. The arm i is also provided at its pivot-point with a lock-shaped portion i^5, and the tube h and arm i may be turned into the position shown in Fig. 3 or diagonally of the plate b, and said arm is provided with a curved flange i^6, which in this position of the parts covers the opening h^4 in the tube h, and thus protects the glass tube h^5.

The tube h and the flange h^2 thereof are held in close frictional contact with the plate b, and said plate is also provided with raised knobs k and k^2, and the flange-plate h^2 of the tube h is provided in its under side with a recess k^3, adapted to receive said knobs or projections, and by this means the tube h may also be held in either of its operative positions. The plate b is also provided with holes or openings b^5 and b^6, which correspond with the holes or openings a^2 and a^3 in the block or bar a and are adapted to register therewith, and these holes or openings permit light to pass through said block or bar and said plate b and enable the operation of the spirit-level to be more clearly seen.

From the foregoing description it will be seen that the plates or other devices c and d are moved longitudinally and transversely of the plate b, and by means of these devices the horizontal position of the spirit-level and the transverse position thereof may be exactly adjusted at all times or whenever necessary.

In order to adapt the device to serve as a quadrant, I provide the base-flange h^2 of the tube h with a pointer m, which operates in connection with a quadrant-scale m^2, formed on the plate b, and the scale-marks of which represent degrees of a circle.

It will be apparent that the plate b and its attachment constitute the tool proper and the bar or block a the support thereof; but some form of a straight-edge must be employed, and any suitable device of this class in connection with which the plate b and its attachments may be employed will serve the desired purpose.

My invention is not limited to the exact details of construction herein shown and described, and I reserve the right to make all such alterations therein and modifications thereof as fairly come within the scope of said invention.

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

1. A combination level, plumb and quadrant involving a straight-edge, and a plate detachably connected therewith, said straight-edge being provided at two different longitudinal points with headed screws or pins and said plate being provided at one end with a notch or recess adapted to receive one of said pins or screws, and at the opposite end with an opening adapted to receive the head of the other pin or screw, said opening being provided with a slot arranged transversely of said plate, an adjustable locking device secured to said plate at the end of said slot, a locking-lever pivoted to said plate on the side of said opening opposite said locking device, a spirit-level tube provided with a base-flange pivoted to said plate near one corner thereof and adapted to turn into a transverse or horizontal position, and means for holding said tube in either position, substantially as shown and described.

2. In a tool of the class described, a plate provided near one corner with a pivoted spirit-level tube and at the corners adjacent, said first-named corner with adjusting devices movable longitudinally and transversely of said plate, and means for locking said plate to a straight-edge, said plate being

also provided with a quadrant-scale, said spirit-level tube with a pointer adapted to operate in connection with said scale.

3. In a tool of the class described, a plate adapted to be connected with a straight-edge, a spirit-level tube pivoted to said plate near one corner thereof, means for holding said tube both in a horizontal and a transverse position, a locking-arm pivoted to said plate and adapted to hold the said tube in a diagonal position and to protect or cover the view-opening therein, said arm being also adapted to aid in holding said tube both in a horizontal and a transverse position, said plate being also provided with a quadrant-scale, and said tube with a pointer, adapted to operate in connection therewith, substantially as shown and described.

4. In a tool of the class described, a plate provided at one end with a notch or recess b^2 and at the opposite end with an opening b^3 having a transverse slot b^4, a locking-plate e connected with said plate at one side of the opening b^6, a locking-lever g connected with said plate on the opposite side of said opening, adjusting devices c and d connected with said plate and a spirit-level tube h pivoted to said plate at h^3, substantially as shown and described.

5. A combination level, plumb and quadrant comprising a plate adapted to be secured to a straight-edge, a spirit-level tube pivoted to said plate near one corner thereof and adapted to turn thereon, and means for holding said tube in either a horizontal or a transverse position, said plate being also provided with a quadrant-scale and said tube with a pointer which operates in connection therewith, and said plate being also provided near its diagonally opposite corners with adjusting devices movable longitudinally and transversely.

6. In a tool of the class described, a plate adapted to be connected with a straight-edge, a spirit-level tube pivoted to said plate near one corner thereof, and an arm pivoted to said plate and adapted to hold said tube in a diagonal position and to lock said tube in a horizontal position, and to protect or cover the view-opening therein, substantially as shown and described.

7. In a tool of the class described, a plate adapted to be connected with a straight-edge, a spirit-level tube pivoted to said plate near one corner thereof, and an arm pivoted to said plate and adapted to hold said tube in a diagonal position and to lock said tube in a horizontal position and to protect or cover the view-opening therein, said arm being also adapted to aid in holding said tube both in a horizontal and transverse position, substantially as shown and described.

8. The combination with an ordinary straight-edge, of an attachment detachably connected with one side thereof and provided with a spirit-level tube, and means whereby the spirit-level tube may be held transversely, horizontally or diagonally of the straight-edge, and a connection between the attachment and the straight-edge including headed devices permanently secured to the side of the straight-edge and adapted to enter openings formed in the attachment, substantially as shown and described.

9. The combination with an ordinary straight-edge, of an attachment detachably connected with one side thereof and provided with a spirit-level tube connected therewith and means whereby the spirit-level tube may be held transversely or horizontally of the straight-edge, and the connection between the attachment and the straight-edge including headed devices permanently connected with the side of the straight-edge and adapted to enter openings formed in the attachment, said attachment being removable without removing said devices, substantially as shown and described.

10. The combination with a straight-edge of a spirit-level attachment comprising a plate adapted to be detachably connected with the side of the straight-edge and provided with a spirit-level tube which is pivoted thereto and adapted to be held in a transverse or horizontal position, said plate being provided in the edge portions thereof with openings, and said straight-edge with headed devices adapted to enter said openings, said headed devices being rigidly secured to the straight-edge and the attachment being detachable from the straight-edge without detaching said devices, substantially as shown and described.

11. A straight-edge attachment comprising a plate adapted to be detachably connected with the side of the straight-edge and provided with a spirit-level tube pivoted at one end thereto, said attachment being also provided with a pivoted arm adapted to hold said tube in a diagonal position and having a shield adapted to cover and protect the opening in said tube, substantially as shown and described.

12. An attachment for a straight-edge, comprising a plate having openings in the edge portions thereof whereby the attachment may be connected with the side of the straight-edge, said straight-edge being provided with headed devices adapted to enter said openings, said plate being also provided with a spirit-level tube, and an arm pivoted to the attachment and provided with a shield adapted in one position of the spirit-level tube to cover the opening therein, substantially as shown and described.

13. The combination with an ordinary straight-edge, of an attachment detachably connected with one side thereof and provided with a spirit-level tube, and means whereby the spirit-level tube may be held transversely, horizontally or diagonally of the straight-

edge, and the connection between the attachment and the straight-edge including headed devices permanently secured to the side of the straight-edge, and means whereby said devices are enabled to engage the said attachment, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 14th day of June, 1902.

WILLIAM POTTER.

Witnesses:

ARTHUR POTTER,

T. U. STEWART.