(No Model.)

C. W. PRESTON.

COMBINATION GAGE.

No. 504,278. Patented Aug. 29, 1893.

Fig. 1.

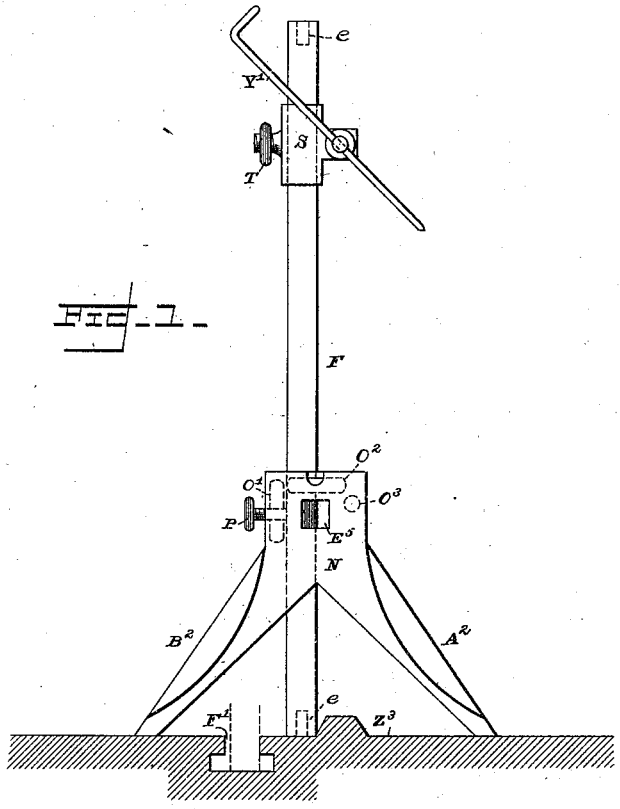
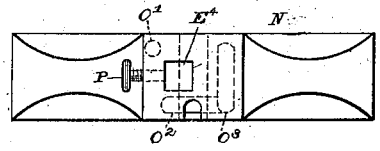


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES W. PRESTON, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR OF ONE-HALF TO WILLIAM C. ESPEY AND WALTER E. ANDERSSON, OF SAME PLACE.

COMBINATION-GAGE.

SPECIFICATION forming part of Letters Patent No. 504,278, dated August 29, 1893.

Original application filed April 7, 1892, Serial No. 428,243. Divided and this application filed November 1, 1892. Serial No. 450,660. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. PRESTON, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Combination Implements; and I do hereby 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 refers to an implement or combination tool, consisting of a number of elements or mechanical parts adapted for combination and connection by arrangement and adjustment so as to perform a great variety of different functions, such as are required in testing, adjusting and laying out mechanical work of various sorts, the object of the invention being to provide a simple and convenient device which may be useful for various purposes, and the invention consists in the construction, arrangement and combination of parts, substantially as will be hereinafter described and claimed.

In another pending application, filed April 7, 1892, Serial No. 428,243, of which application the present one is a division, I have described and claimed a form of my improved combination implement which is adapted for use on plain surfaces. The form of the implement included in the present case is adapted for use on curved surfaces. This distinction between the two forms will be borne in mind in the construction of their various peculiarities and details.

In the accompanying drawings illustrating my invention: Figure 1 is an end elevation, the scale bar being located in a vertical position and the implement serving as a surface gage employed in marking or determining distances with respect to planes or parallel surfaces, horizontal, vertical, or angular. Fig. 2 is a top plan view of the main stock or head.

Similar letters of reference designate corresponding parts throughout all the different figures of the drawings.

F denotes a bar of rectangular form, its sides being parallel and straight and one or more of them being graduated and provided with a suitable scale to enable the bar to be easily adjusted and placed in use, and it is whenever practicable, set so that its corners will come in contact with the work, thus giving a clear line of light in setting. This graduated rectangular bar F is provided at its ends with screw-holes *e e* to receive the screws Q which are employed in protecting the ends of the scale bar from injury when in use and for various other purposes. The screw holes *e e* are adapted to receive lathe points when so required.

N denotes one of the main stocks, heads or bases of this form of my improved combination implement. I employ one or more of these main stocks N as occasion and circumstances require. The stock N is shown in elevation in Fig. 1 and in top plan view in Fig. 2. It has a main body and two inclined legs. The two legs have the faces A^2 and B^2 which are flat and are situated preferably at an angle of about ninety degrees to each other. These legs are adapted to partially inclose any cylindrical surface to which the implement may be applied, as shown in Fig. 1. The main body of the stock N is provided with a vertical spirit level O′ and two horizontal spirit levels O^2 and O^3. It is also furnished with a horizontal slot or mortise E^5, and a vertical slot or mortise E^4, together with a set-screw P, located and arranged so as to serve to clamp or hold the scale bar F whenever it is inserted into either of the mortises E^4 or E^5.

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

1. In a combination implement, a stock or head provided with angular faces which may rest upon cylindrical forms and provided with mortises or seats for receiving a scale bar parallel to or transversely to the axis of any cylindrical form to which the stock or head may be applied and a clamping means for holding the bar in position and permitting its lineal adjustment, substantially in the manner and for the purposes as set forth.

2. In a combination implement, the main stock provided with the angular projections

having faces at right angles to each other and provided also with mortises or seats at right angles to each other, in combination with the scale bar adapted to be received into and held adjustably within said mortises, substantially in the manner and for the purposes indicated.

3. In a combination implement, the head N, having the angular faces A^2 B^2 and the mortises or seats E^4 and E^5, in combination with the scale bar F, substantially as described.

4. The main stock N, having the faces A^2 and B^2 at right angles to each other and having also the vertical mortise E^4, horizontal mortise E^5, clamping screw P and vertical and horizontal levels, all in combination with the scale bar, substantially as described.

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

CHARLES W. PRESTON.

Witnesses:

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