

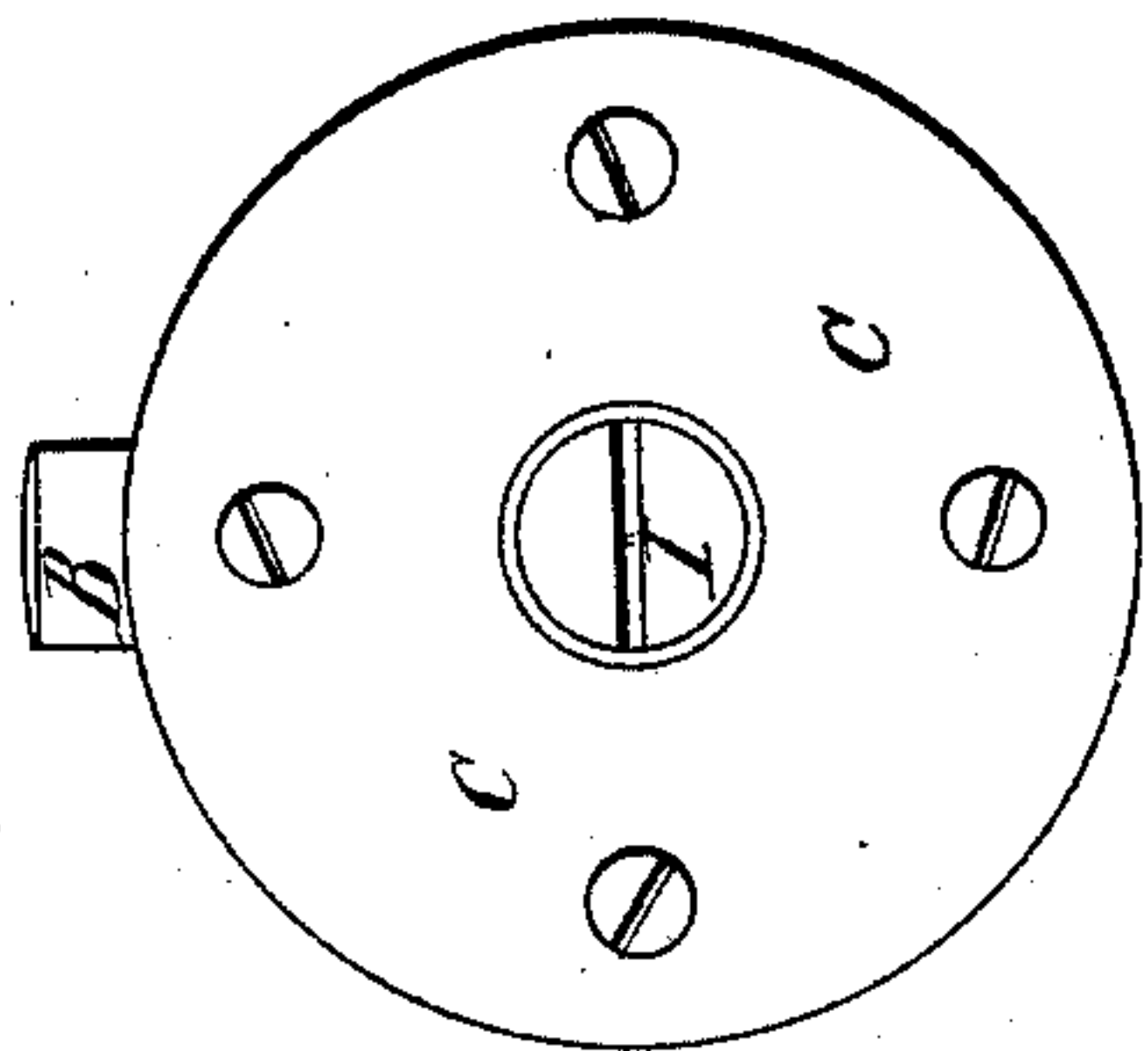
A. Williams.

Combined Gauge.

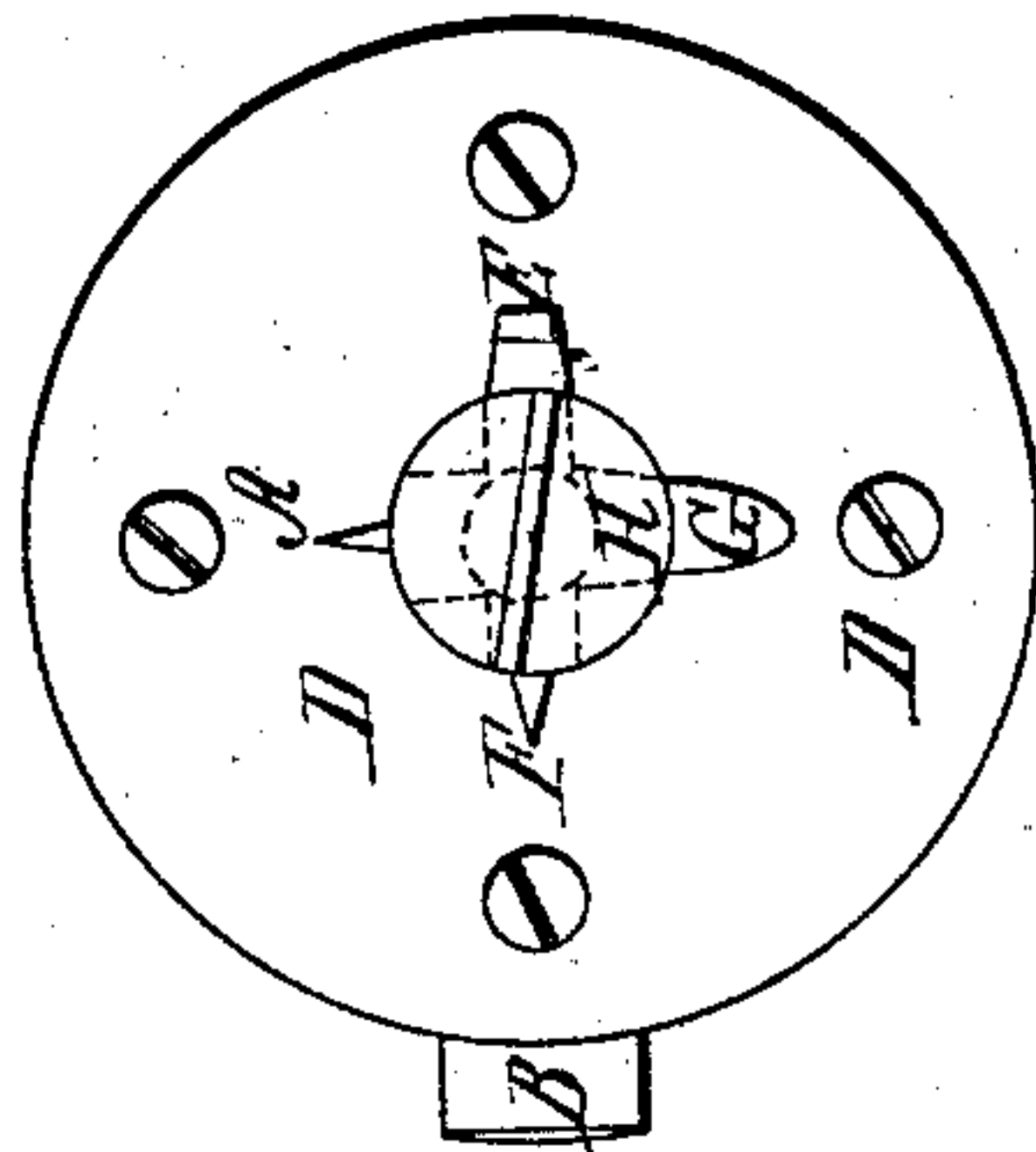
N^o 17,403.

Patented May 26, 1857.

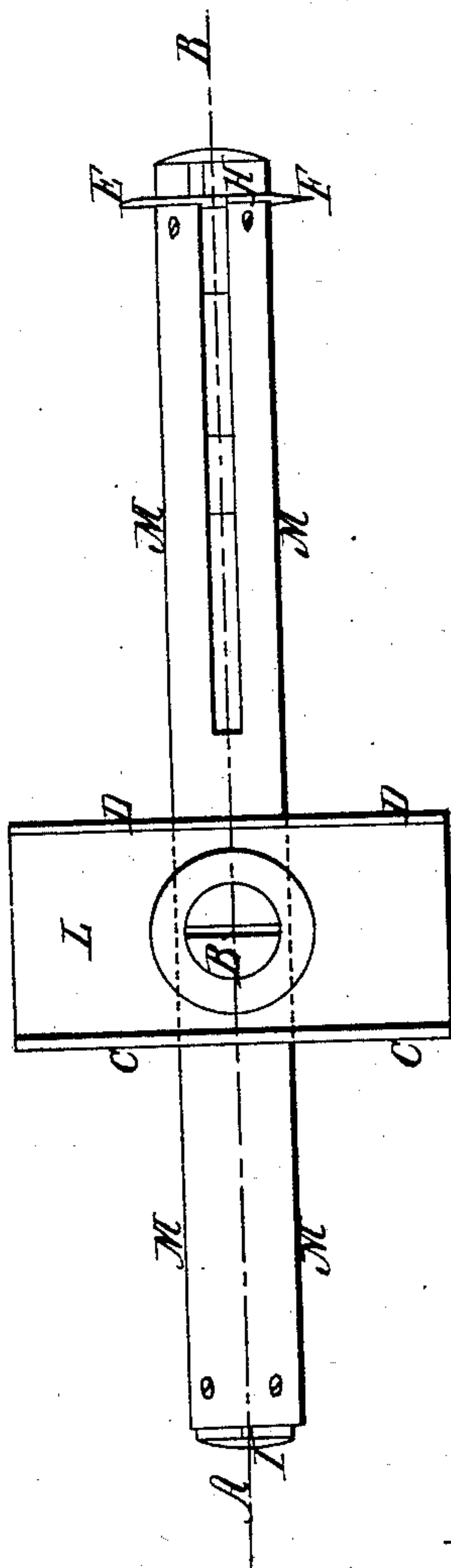
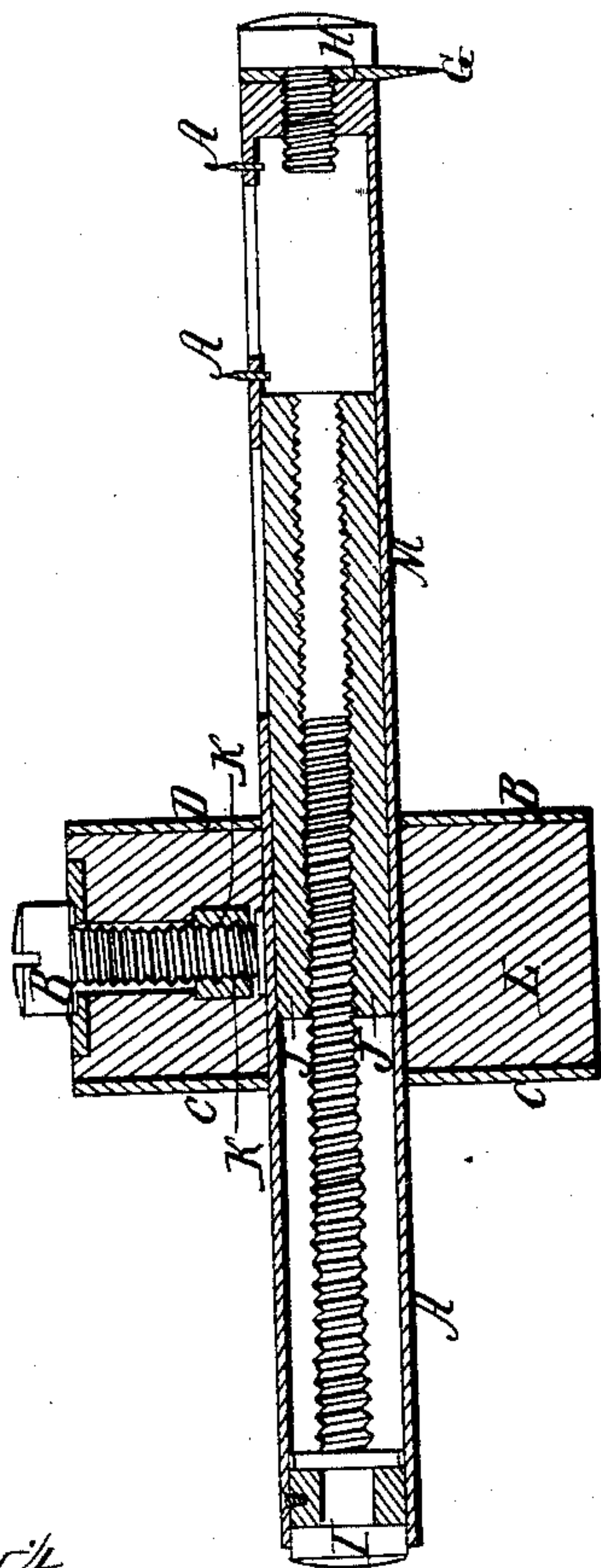
End view at C.C.



End view at D.D.



Section at A.A.



Witnesses;
Enoch Remick
James Nichol

Inventor;
Albert Williams

UNITED STATES PATENT OFFICE.

ALBERT WILLIAMS, OF PHILADELPHIA, PENNSYLVANIA.

COMPOUND GAGE.

Specification of Letters Patent No. 17,403, dated May 26, 1857.

To all whom it may concern:

Be it known that I, ALBERT WILLIAMS, of Philadelphia, county of Philadelphia, State of Pennsylvania, have invented a new Improved Combined Gage; that I do hereby declare that the following is a correct and full description thereof, reference being had to the accompanying drawing and the letters marked thereon.

To enable others skilled in the art to make and use my invention I will proceed to describe its construction and operation.

Description: A A, mortise gage; B B, head screw; C C, headface for metal workers or machinists; D D, headface for carpenters or other workers on wood; E E, machinist's or metal workers' point for marking; F F, single or common gage point; G G, cutting point for wood, paper, leather, or other soft material; H H, screw for holding the three combined points; I I, mortise regulating screw; J J, cylinder in which the regulating screw works; K K, head screw nut; L L, gage head complete; M M, stem of gage.

Operation: A A is the mortise for marking wood for mortising.

B B is the screw which fastens the head on the stem M M at any point as the operator may desire.

C C is the face of gage head for machinists' or other metal workers' use for marking all kinds of metal.

D D is the reverse head face of gage for carpenters' or others' use for marking and cutting.

E E represents the point for machinists' or metal workers' use, to be used with face C C.

F F represents the common or single

point, gage point, for marking wood or anything else at the option of the operator, to be used with face D D.

G G represents the cutter for cutting wood, leather, paper, or any other soft material, to be used with face D D.

H H represents the screw holding the three combined points on top or end of stem M M.

I I represents the mortise regulating screw working or screwing into cylinder J J for mortising wood or other material.

J J represents cylinder screw into which the regulating screw I I works for mortising.

K K represents the nut in the center of head L L that screw B B works in.

L L represents gage head complete working on stem M M.

M M represents stem of gage made of brass or other metal, on which the head L L works for all the uses of the gage.

Length of stem M M seven inches 7 in. complete; diameter of stem M M five eighths of an inch, $\frac{5}{8}$ in.; diameter of head L L two in. and three eighths of an inch, $2\frac{3}{8}$ in., thickness of head L L one inch and a quarter full, $\frac{1}{4}$ in.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the four several gages in one tool; and all operating on the same end of the stem; the mortise working with an anti-friction screw, the head of which is at the bottom or end of stem.

ALBERT WILLIAMS.

Witnesses:

ENOCH REMICK,
JAMES NICHOL.