(No Model.)

J. WYKE.

SCREW CUTTING GAGE.

No. 284,702. Patented Sept. 11, 1883.

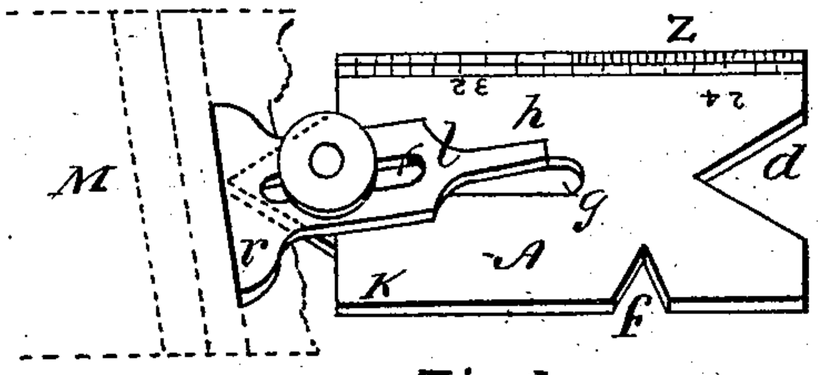

Fig. 1.

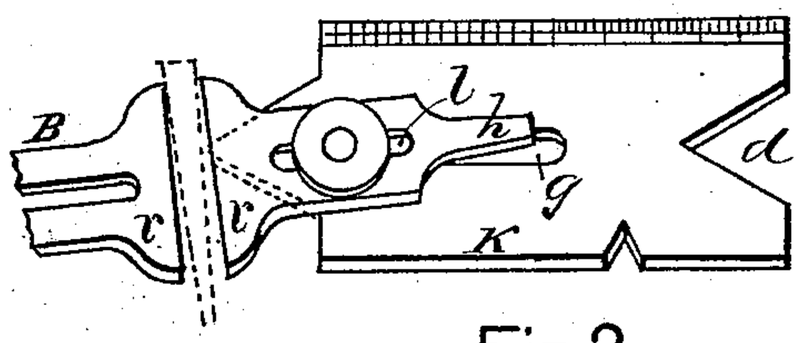

Fig. 2.

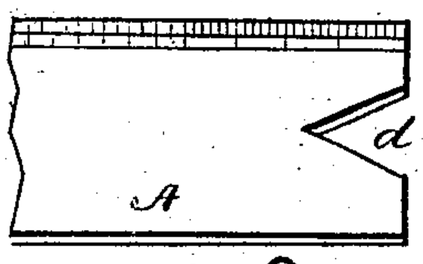

Fig. 8.

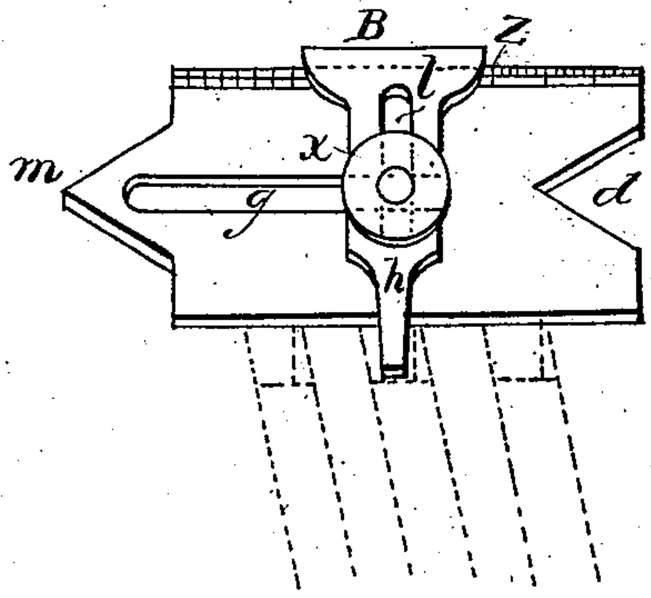

Fig. 3.

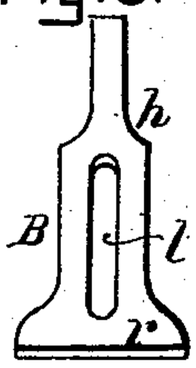

Fig. 9.

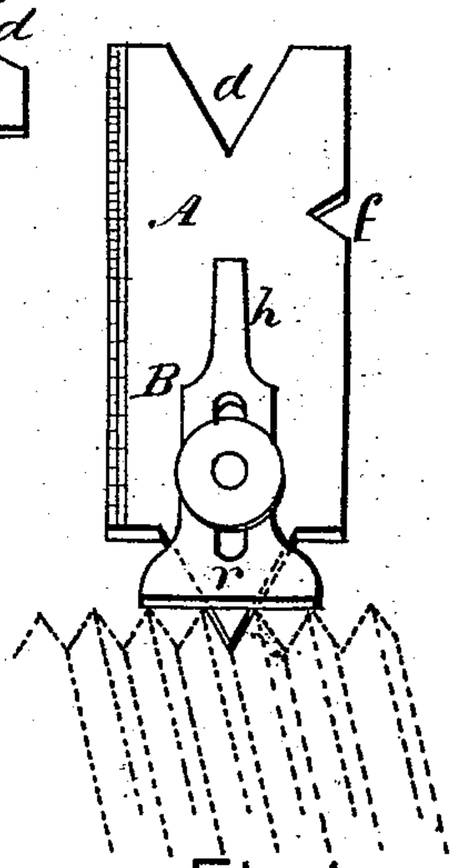

Fig. 4.

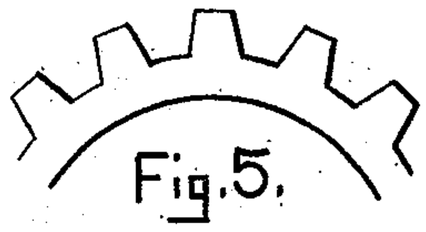

Fig. 5.

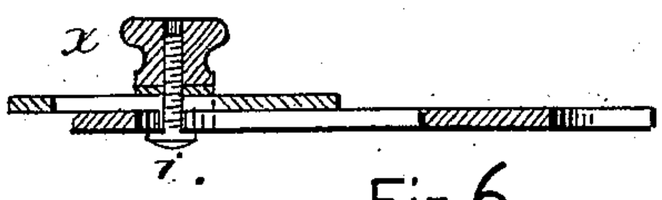

Fig. 6.

Fig. 7.

Witnesses.
H. E. Metcalf,
B. F. Appleton

Inventor.
John Wyke,
C. A. Shaw
Per Atty.

UNITED STATES PATENT OFFICE.

JOHN WYKE, OF BOSTON, MASSACHUSETTS.

SCREW-CUTTING GAGE.

SPECIFICATION forming part of Letters Patent No. 284,702, dated September 11, 1883.

Application filed December 11, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN WYKE, of Boston, in the county of Suffolk, State of Massachusetts, have invented a certain new and useful Improvement in Gages, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents my improved gage as used in ascertaining the pitch or "rake" of a tool for cutting screws; Fig. 2, a like view, showing a section of the gage reversed. Fig. 3 represents it as used for ascertaining the depth of the threads on a square-threaded screw; Fig. 4, as used in ascertaining the depth of the threads on an ordinary V-threaded screw; Fig. 5, a segment of a gear; Fig. 6, a vertical longitudinal section of the gage; Fig. 7, a segment of a rack; Fig. 8, the ordinary gage, and Fig. 9 the auxiliary gage.

Like letters of reference indicate corresponding parts in the different figures of the drawings.

My invention relates to the class of gages which are employed by screw-cutters in constructing their tools, and for ascertaining the depth and pitch or angle of screw-threads; and it consists in providing the ordinary gage with an attachment constructed and arranged to operate as hereinafter more fully set forth and claimed, by which a very simple, cheap, and far more effective device of this character is produced than is now in common use.

The nature and operation of my invention will be readily understood by all conversant with such matters by the following explanation, its extreme simplicity rendering an elaborate description unnecessary.

A gage now in ordinary use is shown at A in Fig. 8, and consists of a flat plate of steel, rectangular in form, and provided with the scale *z*, V-shaped point *m*, large V-shaped notch *d*, and small V-shaped notch *f*, to which, when in and of itself considered, I lay no claim.

My improvement consists in providing the gage A with the auxiliary gage B, having the peculiar construction shown in Figs. 1, 2, 3, and 4, and which is attached thereto by means of the nut *x* and screw *i*, the screw passing through the corresponding elongated central slots, *g l*, in the bodies of the gages, and into the nut, as shown in Fig. 6.

The auxiliary gage is formed as best seen in Fig. 9, being provided with the flat wide head *r* and the long and narrow tail-piece *n*, both of these parts being squared at their outer ends, or so formed that their ends stand at right angles with a line drawn longitudinally through the center of the gage and its slot *l*.

In the use of my improvement the gage B is set, by means of a test-gage or otherwise, at any desired angle on the gage A, or in accordance with the work it is required to do. For instance, to arrange the gage as shown in Figs. 1 and 2 the edge K of the gage A may be placed on a perfectly horizontal bed or surface, and the gage B arranged in such a manner as to project beyond the point *m*, its wide end or head *r* being turned down until it stands at an angle corresponding with the angle or pitch it is desired to give to the cutter of the tool M, where it is secured by the nut and screw *x i*, and may be applied to either side of the cutter, as shown in said last-named figures.

To ascertain the depth of the threads in a square-threaded screw, the auxiliary gage is set at right angles to the body A, its tail projecting over the edge to a distance corresponding with the depth of the threads it is desired to cut, and, when so arranged and secured in position, is applied or used as shown in Fig. 3, the edge K resting on the tops of the threads when so finished, and the tail extending to the bottom of the groove between the same.

For measuring the depth and testing the incline or angle of V-shaped threads, the gages are arranged as seen in Fig. 4, the end *m* projecting beneath the head *r*, which is secured at right angles to the longitudinal central line of the gage A, and rests upon the teeth of the screw when the same are cut to a proper depth.

It will be obvious that the auxiliary gage may be so arranged in combination with the gage A as to readily test the depth and pitch of the gear and rack teeth shown in Figs. 5 and 7; and also that it may be applied to any similar

uses without departing from the spirit of my invention.

The notches *d f* and scale *z* may, one or all, be omitted, if desired, without departing materially from the spirit of my invention.

Having thus explained my improvement, what I claim is—

The improved gage described, the same consisting of the main gage A, provided with the scale *z*, point *m*, notches *d f*, and slot *g*, the auxiliary gage B, provided with the head *r*, tail *h*, and slot *l*, and the screw *i* and nut *x*, constructed, combined, and arranged to operate substantially as set forth.

JOHN WYKE.

Witnesses:
H. E. METCALF,
C. A. SHAW.