

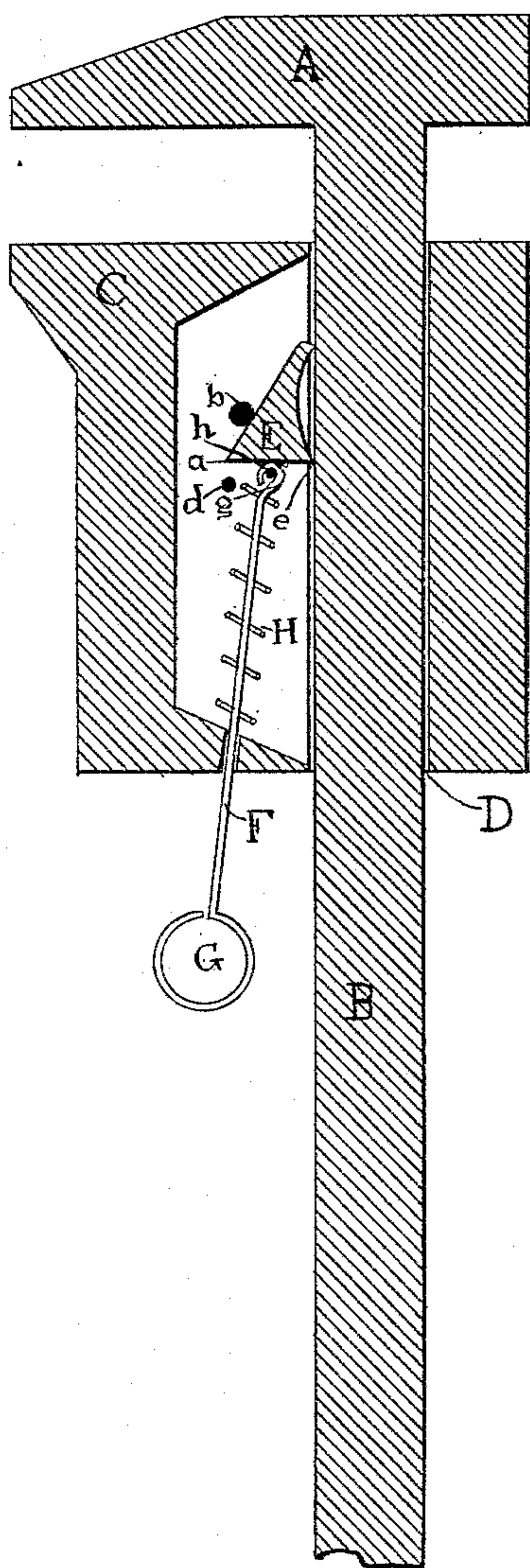
(No Model.)

H. G. T. GLAZEBOOK.

WRENCH.

No. 387,873.

Patented Aug. 14, 1888.



Witnesses.

*Harold MacKay.*

*Frank Dorian.*

Inventor.

*H. G. T. Glazebrook.*

By *his Attorneys in fact.*

*Chas E. Barber.*



# UNITED STATES PATENT OFFICE.

HENRY G. T. GLAZEBROOK, OF SIMCOE, ONTARIO, CANADA.

## WRENCH.

SPECIFICATION forming part of Letters Patent No. 387,873, dated August 14, 1888.

Application filed September 20, 1886. Serial No. 213,983. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY G. T. GLAZEBROOK, a subject of the Queen of Great Britain, residing at Simcoe, in the county of Norfolk, Province of Ontario, Canada, have invented a new and useful Improvement in Sliding-Jaw Wrenches, of which the following is so full, clear, and exact a description as will enable others skilled in the art to which my invention appertains to make and use the same, reference being had to the accompanying drawing, in which I show a longitudinal section of a wrench embodying my improvement.

The object of this invention is to construct a wrench which may be quickly and easily adjusted to nuts of varying sizes with the greatest degree of certainty in the shortest possible time with the least expense of physical force.

In the accompanying drawing, the permanent jaw A is rigidly secured to a straight smooth rectangular handle, B. A hollow perforated jaw, C, is mounted on the handle B, which handle extends through the perforation D in the sliding jaw. Within the hollow sliding jaw C is located a triangular-shaped cam, E, having a cutting-edge, *e*, which abuts against the handle B, and which is adapted to embed itself into the metal of the handle sufficiently to hold the sliding jaw against movement away from the permanent jaw A while the wrench is being used to operate a nut. The inclined face *a* of the cam E abuts against a stop, *b*, which has a tendency to wedge the cam snugly in between the stop *b* and the handle B in such a manner that all movement of the sliding jaw away from the permanent jaw is prevented until the cam is released by the operation of the rod F, which rod is provided at its outer end with a finger-loop, G, and at its inner end with a smaller loop, *g*, which engages with a staple, *h*, on the inner end of the cam E, thus securing the rod F and the cam E pivotally together at this point. A coiled spring, H, encircles the rod F, and abuts against the cam at one end and against the end of the sliding jaw at the opposite end in such a manner as to keep the cam E normally into contact with the stop *b* and the side of the handle B. A second stop, *d*, limits the movement of the cam E away from the stop *b*. The rod F extends through a perforation, I, in the hollow sliding jaw C.

From the foregoing it will be readily understood that the positive and instantaneous adjustment of the wrench can be effected as follows: The finger of the operator may be slipped through the loop G and the sliding jaw moved to any point away from the rigid jaw A, and when the sliding jaw is adjusted to the desired point on the handle B the rod F is released, when the force of the spring H will, by its own resiliency, cause the cam E to rest snugly in between the stop *b* and the handle B, where it will hold the sliding jaw until the cam is released by the operation of the rod F. All pressure of any nut or bolt against the gripping-surface of the sliding jaw C will simply have the effect of embedding the cutting-edge *e* of the cam E more deeply into the metal of the handle B; but the sliding jaw will remain firmly in place until released, as heretofore explained. When it is desired to release the sliding jaw, the finger of the operator is again inserted into the finger-loop G, the rod F is pulled with sufficient force to overcome the resilient force of the spring H, and the cam is pulled back until it strikes the stop *b*, when the sliding jaw will be free to be moved to any desired point on the handle B.

Having now described my invention, what I believe to be new, and desire to secure by Letters Patent and what I therefore claim, is—

In a wrench, a hollow perforated sliding jaw provided with a movable cam triangular in outline and having one cutting-edge and confined within predetermined limits entirely within the sliding jaw by stops *b* and *d*, and also having a rod provided with a circular loop at its outer end and pivotally secured to said cam at its inner end, and a coiled spring encircling said rod and keeping the cam normally in contact with the handle, in combination with a straight smooth handle which extends through the perforated jaw and has a rigid jaw secured thereto, all constructed and combined to operate substantially as and for the purposes specified.

Dated at Simcoe, Ontario, this 21st day of July, A. D. 1886.

H. G. T. GLAZEBROOK.

In presence of—

J. H. ANSLEY,  
G. E. JACKSON.