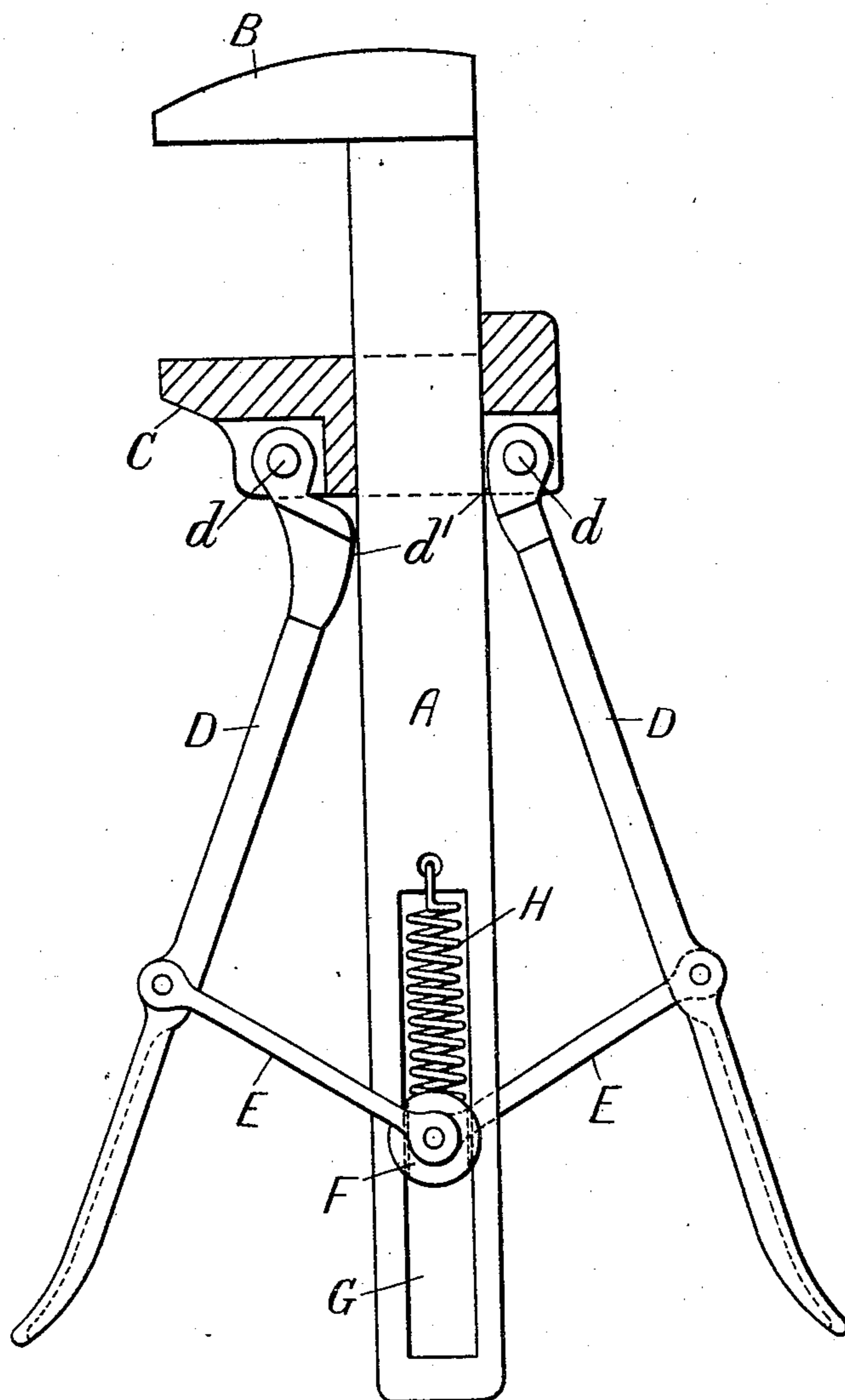


No. 835,194.

PATENTED NOV. 6, 1906.

A. S. MATHIESON.
NUT WRENCH OR SPANNER.
APPLICATION FILED MAY 16, 1906.



Witnesses:-

C. H. Crawford
L. Waldman

Inventor

Alexander Simpson Mathieson

by B. Inger Attorney

UNITED STATES PATENT OFFICE.

ALEXANDER SIMPSON MATHIESON, OF GLASGOW, SCOTLAND.

NUT WRENCH OR SPANNER.

No. 835,194.

Specification of Letters Patent.

Patented Nov. 6, 1906.

Application filed May 16, 1906. Serial No. 317,189.

To all whom it may concern:

Be it known that I, ALEXANDER SIMPSON MATHIESON, a subject of the King of the United Kingdom of Great Britain and Ireland, residing at Glasgow, Scotland, have invented a certain new and useful Improved Nut Wrench or Spanner, of which the following is a specification.

This invention relates to wrenches or spanners for turning nuts on bolts and for like use; and it consists of an improved construction of wrench which is self-adjusting to any size of nut within the limit of the maximum opening of its jaws.

The improved wrench which is illustrated in the accompanying drawing in sectional side elevation is composed of the usual shank or stem A of approximately rectangular section, with a fixed head or jaw-piece B at one end and a movable jaw C, which is fitted over the shank A and is free to slide thereon into more or less close proximity to the fixed jaw-piece B. Pivoted on the movable jaw C are two hand-levers D D, placed one on each side of the shank A and having on their inner edges close to the pivot-centers *d* roughened cam-surfaces *d'*, which are adapted to engage like surfaces on the edges of the shank A when the levers D D are brought together by the grip of the hand. These hand-levers have each jointed to them a link or strut E, the inner ends of the links being coupled to a pin F, working in a slot G in the shank A and being held by a helical or other spring H in the slot in such position that the links E E serve to expand the hand-levers D D.

In the use of the wrench the jaws B C are passed without adjustment over the nut to be operated on and the hand-levers D D gripped, and by the interposition of the links E E the closing pressure on the hand-levers causes them to slide the movable jaw C until resisted by engagement with the nut. Further pressure on the hand-levers compels the links or struts E E to yield by moving the coupling-pin F along the slot G against the spring tension, and as the hand-levers D D close toward the shank the cam-surfaces *d'* adjacent to their pivoted ends firmly engage the edges of the shank A and prevent further movement of the sliding jaw, so that the jaws B C firmly engage the nut while the wrench is used to turn it.

Having now described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

A nut wrench or spanner comprising the usual stem with fixed and movable jaws and levers pivoted on the movable jaw having linked to them struts coupled to a pin working against spring tension in a slot in the stem the said levers being formed with cam-surfaces adjacent their pivoted ends to engage the edges of the stem as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALEXANDER SIMPSON MATHIESON.

Witnesses:

WALLACE FAIRWEATHER,
JOHN ARMSTRONG, Junr.