

No. 638,739.

Patented Dec. 12, 1899.

H. MORRISON.
ROAD BREAKING MACHINE

(Application filed Sept. 14, 1899.)

(No Model.)

Fig: 1.

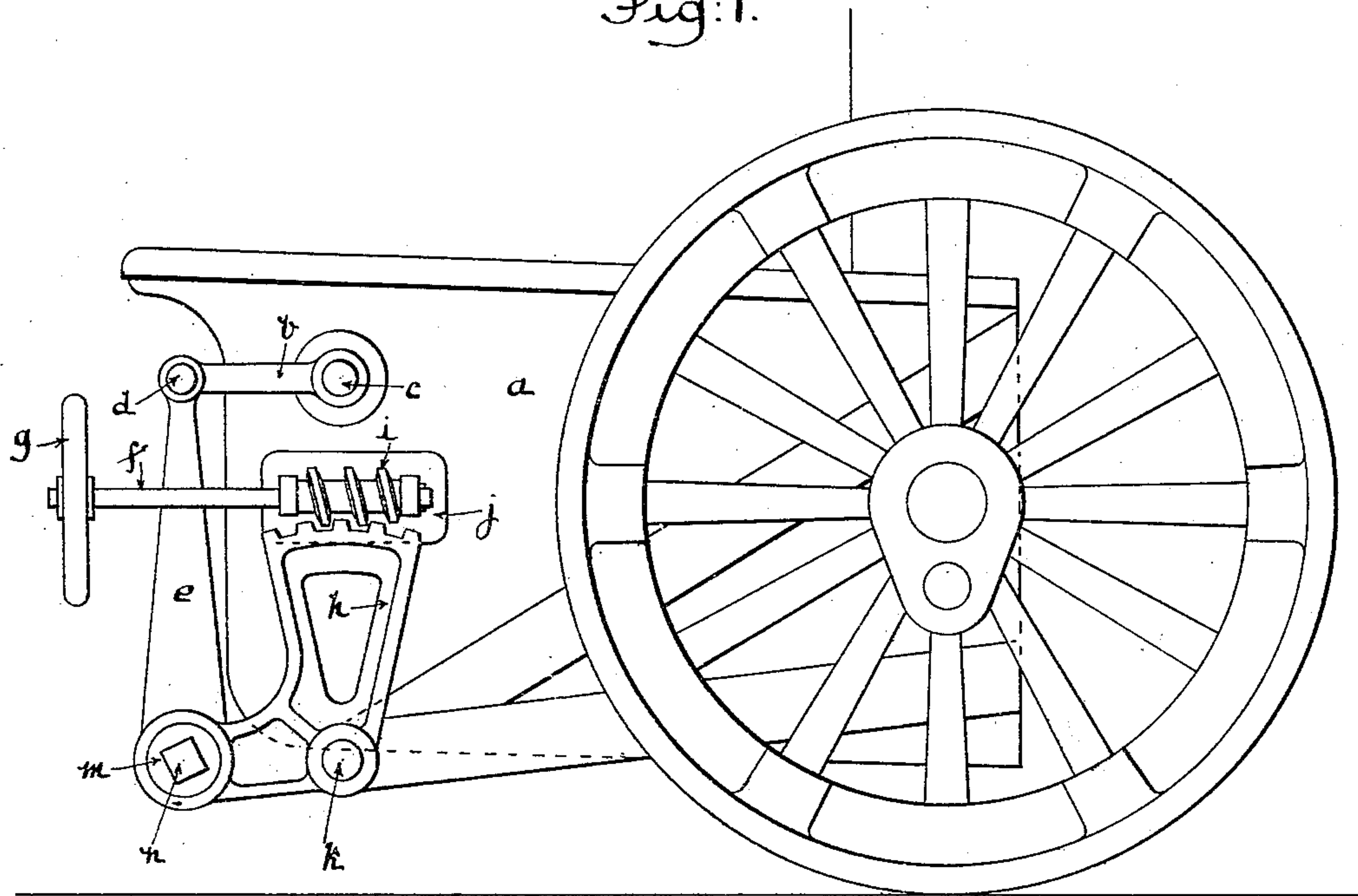


Fig: 2.

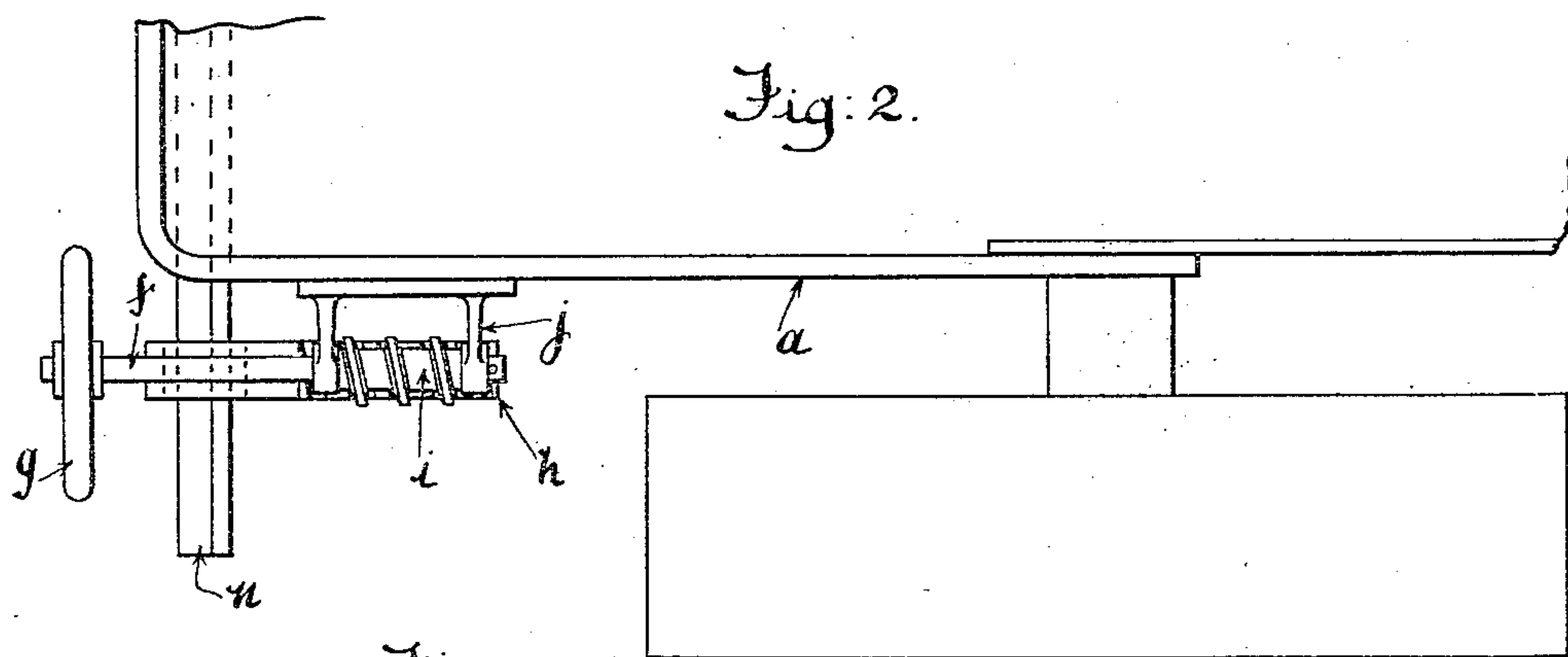
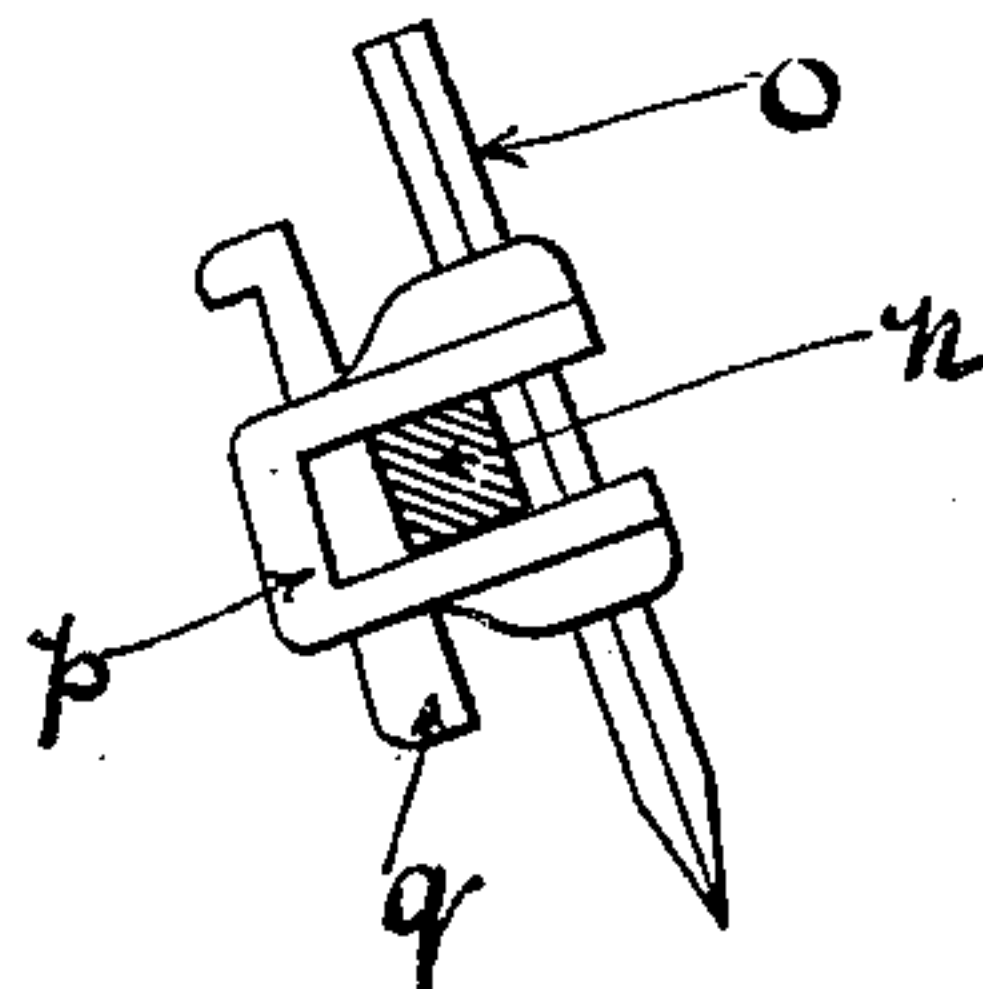


Fig: 3.

Fig: 4.

Witnesses.
W. D. Burgess
Charles H. Biggs.



Inventor:-
Harry Morrison.
per: *E. Eaton.*
His Attorney.

UNITED STATES PATENT OFFICE.

HARRY MORRISON, OF LONDON, ENGLAND.

ROAD-BREAKING MACHINE.

SPECIFICATION forming part of Letters Patent No. 638,739, dated December 12, 1899.

Application filed September 14, 1899. Serial No. 730,517. (No model.)

To all whom it may concern:

Be it known that I, HARRY MORRISON, a subject of the Queen of Great Britain, and a resident of Forest Gate, London, in the county of Essex, England, have invented certain new and useful Improvements in Road-Breaking Machines, (for which I have applied for a patent in Great Britain, No. 4,140, dated February 24, 1899,) of which the following is a full, clear, and exact specification.

This invention consists of improvements in or relating to road-breaking machines or engines, the object being to provide a simple and effective means for raising or lowering the tools for breaking a road without altering the angle at which they are set.

For purposes of illustration I will now refer to the annexed drawings, in which—

Figure 1 is a side elevation of a road-breaking machine or engine; Fig. 2, a sectional plan view; Fig. 3, a view of tool-holder and tool, and Fig. 4 another view of the tool-holder and tool.

Referring to Figs. 1 and 2, *a* is the body of the road-breaking machine or engine. *e* is a bar pivotally connected at *d* to a lever *b*, which is in turn pivotally connected at *c* to the body *a* of the road-breaking machine or engine. This bar *e* rigidly carries the spindle or rod *n*, which is of any required section, such as square. *m* is a collar carried upon the rod or spindle *n*, which is free to rotate in the bracket *h*, which is pivotally carried upon the body of the road-breaker at *k*. This bracket *h* is provided with teeth which engage in the worm *i* upon the spindle *f*. This worm-spindle *f* is pivotally carried by the bracket *j*, which is also attached to the road-breaking machine or engine in any convenient manner. It will be seen that by rotating the hand-

wheel *g* the piece *h* will move so as to raise or lower the spindle *n*.

Referring to Figs. 3 and 4, in this case it will be seen that the tool-holder *p* will secure the tool *o* upon the spindle *n* through the jamming or tightening action of the wedge *q*. In Fig. 4 a slight modification of the shape of the tool is shown. By the use of this holder tools of varying lengths and shapes may be employed. For instance, in trenching the tool may be of sufficient length to be lowered at intervals as required. Of course it is understood that the tools are carried at any suitable part of the spindle. By this arrangement the raising or lowering of the tools will not alter the angle at which they are set.

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

In road-breaking machines of the class herein described in combination, a spindle or rod of square or angular section, a bar in which said rod is rigidly carried, a lever pivotally connected to the end of said bar and to the body of the machine, a bracket pivotally connected to the body of the machine and carrying a collar engaging upon said spindle, teeth upon said bracket, a spindle having a worm, and rotated by a hand-wheel for operating said bracket, tool-holders adapted to be cramped or secured to tools upon the spindle and through the medium of wedges, substantially as described and illustrated herein.

In testimony that I claim the foregoing I have hereunto set my hand this 27th day of March, 1899.

HARRY MORRISON.

Witnesses:

JAMES FLEMING,

WILLIAM JOHN WEEKS.