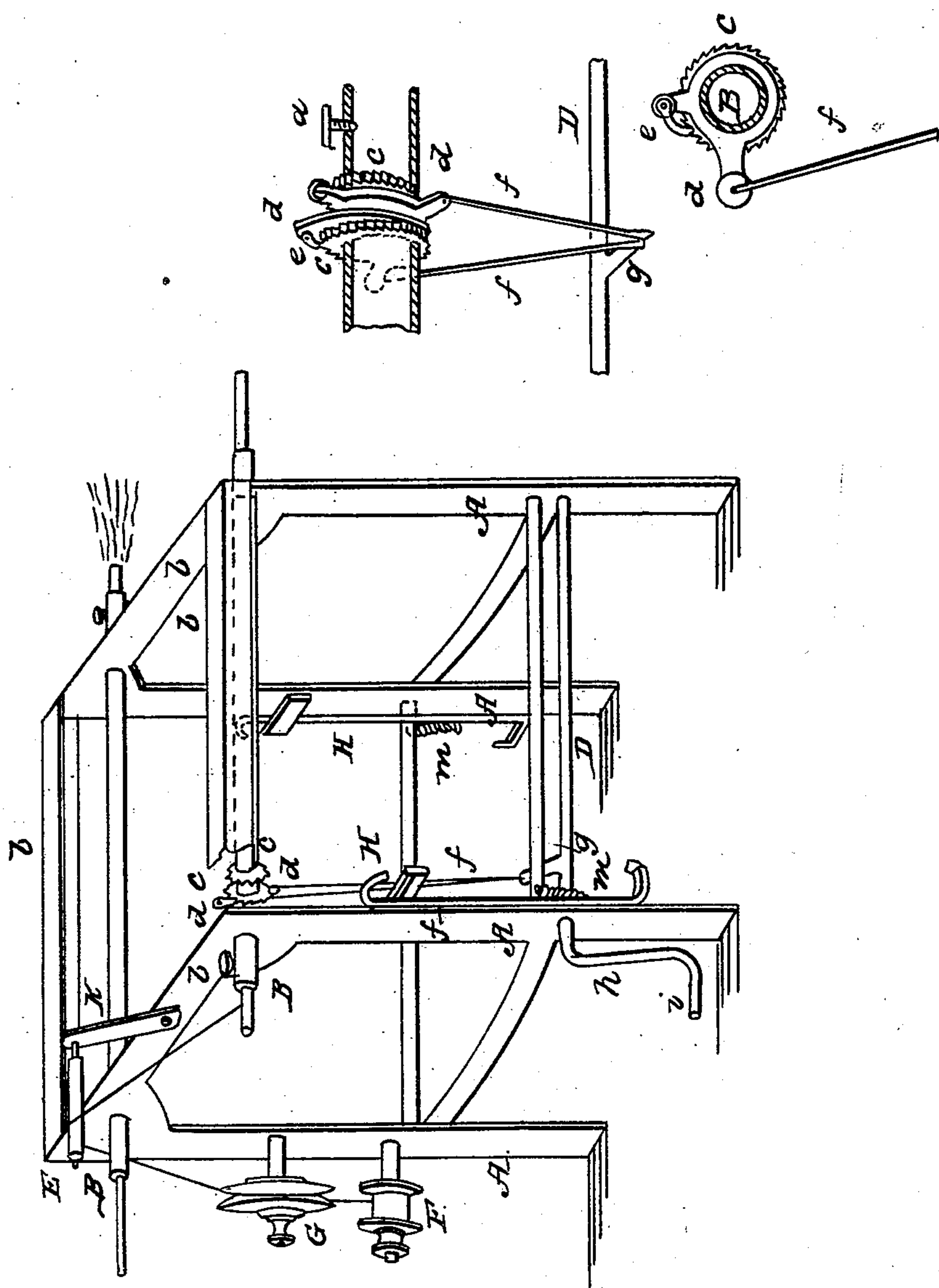


S. ROWE.
Making Brooms.

No. 18,770.

Patented Dec. 1, 1857.



UNITED STATES PATENT OFFICE.

SPENCER ROWE, OF BALTIMORE, MARYLAND.

MACHINE FOR MAKING BROOMS.

Specification of Letters Patent No. 18,770, dated December 1, 1857.

To all whom it may concern:

Be it known that I, SPENCER ROWE, of the city and county of Baltimore and State of Maryland, have invented certain new and
5 useful Improvements in Machines for Making Corn Brooms; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the
10 accompanying drawings, making a part of this specification.

My improvements are peculiarly adapted to the manufacture of brooms, wherein wire is used for braiding, in which the greatest
15 difficulty heretofore has been in giving the requisite strain to the wire, and retaining said strain without risk of breakage.

The improvement consists in giving motion to a hollow shaft in which the broom
20 handle is secured, directly by the foot of the operator and in such a way that the same amount or degree of movement is obtained by the pull or retraction of the foot as that obtained by the push thereof, thus
25 giving double the motion of any other broom machine besides giving an easy, smooth, and steady movement to the broom handle, not attainable by a pulley and strap machine, and enabling the workman to wrap and
30 braid a broom in one half the usual time.

The improvement further consists in more perfectly straining the wire, through the instrumentality of a friction spool placed as a regulator between the screw guide and
35 the broom on which the wire is wound.

To enable others to make and use my machine I would describe it as follows:

A A A A are upright portions of a metal frame corresponding to legs. *b b b b*, are
40 cross pieces, thus forming a skeleton table. This table is calculated as a support for two machines. The parts hereafter described being for a single machine it is only necessary that they be duplicated.

45 B is a hollow shaft, turning freely in boxes or bearings in the cross pieces.

(C C) are ratchet wheels secured on the hollow shaft.

50 (*d d*) are swiveled arms turning on the shaft.

(*e e*) are pawls attached to the arms (*d d*), they operate the ratchet wheels and shaft; (*f f*) pitman rods connected with arms standing out at right angles to those
55 carrying the pawls.

D, is a rock shaft having a projecting arm (*g*) to which the pitman rods are secured by a bolt. This rock shaft has a pedal rod (*h*) and foot rest (*i*) projecting at its lower end.

E is a sleeve having a screw cut on its surface, it turns freely on a rod secured to an adjustable rest or upright (*k*). By this screw E the wire is guided to the broom, the adjustable arm *k* or rest allows the
60 height of the wire to be varied. 65

F is the bobbin upon which the wire is wound.

G is the friction spool. The shaft on which it turns is provided with washers or
70 plates and a set screw nut. It is between these plates the spool has its friction in straining the wire. 75

The bobbin F may also be provided with similar plates.

H is a sliding rod having its lower end bent to serve as a foot rest and its upper end as a hook, it slides through a guide or opening in a projecting portion of one of the up-
80 rights of the frame. 85

(M) is a helical spring for drawing up the rod H. The use of this hook rod is to break or mash the stalk of the corn into suitable form and condition instead of hammering it, as it is applied to the broom
85 handle. 90

The making of a broom is as follows: A handful of stock of suitable size is laid between the hook end of H and the projection of the frame, then the workman applies his
90 foot to the pedal and crushes or breaks the stalks of corn. After this preparation it is applied to the handle (which was previously run through the hollow shaft and has the end of the wrapping wire secured to it) by the
95 workman, who as he lays it, gives the required movement to the handle and shaft by a push of his foot on the foot rest (*i*). As he retracts his foot and the pedal, a further movement of the handle is given and
100 additional stalks are applied until sufficient to form a broom. The wire wrapping being drawn from around the spool G and from the bobbin F, and directed by the screw guide E, which lays it with regularity on
105 the broom. The proper degree of strain being kept up by the friction on the spool so that the full strength of the wire is brought to bear on the stock in forming the broom.

Having described my improvement, what 110

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

5 The employment of the double pawl operating on the ratchet wheels C, C, and hollow shaft B, the rock shaft D and rods *f f*, all arranged as described, when in combination with the guide E and friction spools G, and bobbin F for the purpose of

manufacturing corn brooms in a superior manner.

10

In testimony whereof I have signed my name before two subscribing witnesses.

SPENCER ROWE.

Witnesses:

JOHN F. CLARK,

JOHN S. HOLLINGSHEAD.