

(No Model.)

2 Sheets—Sheet 1.

P. McLAUGHLIN.  
EDGE SETTING MACHINE.

No. 374,314.

Patented Dec. 6, 1887.

Fig. 1.

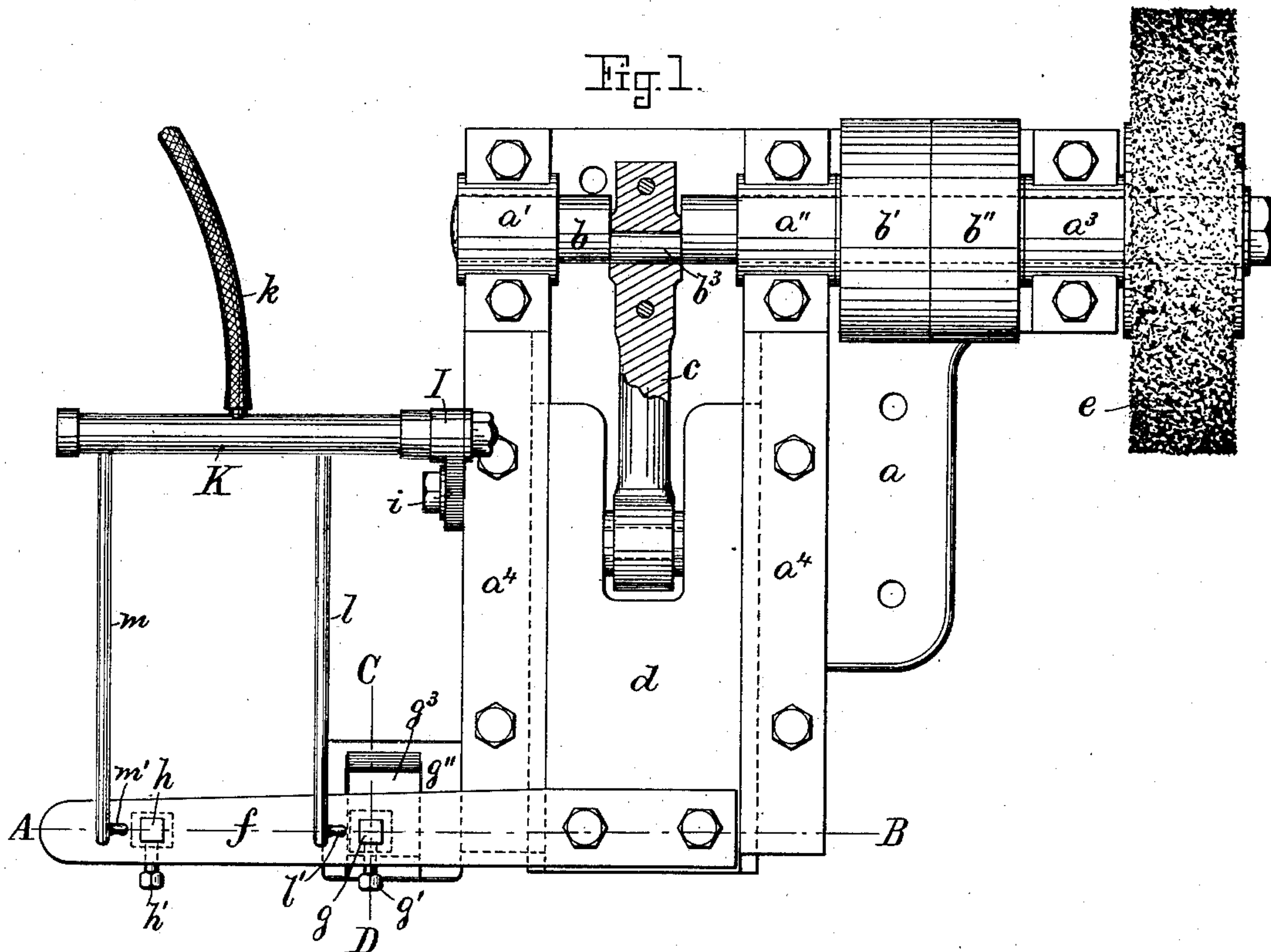
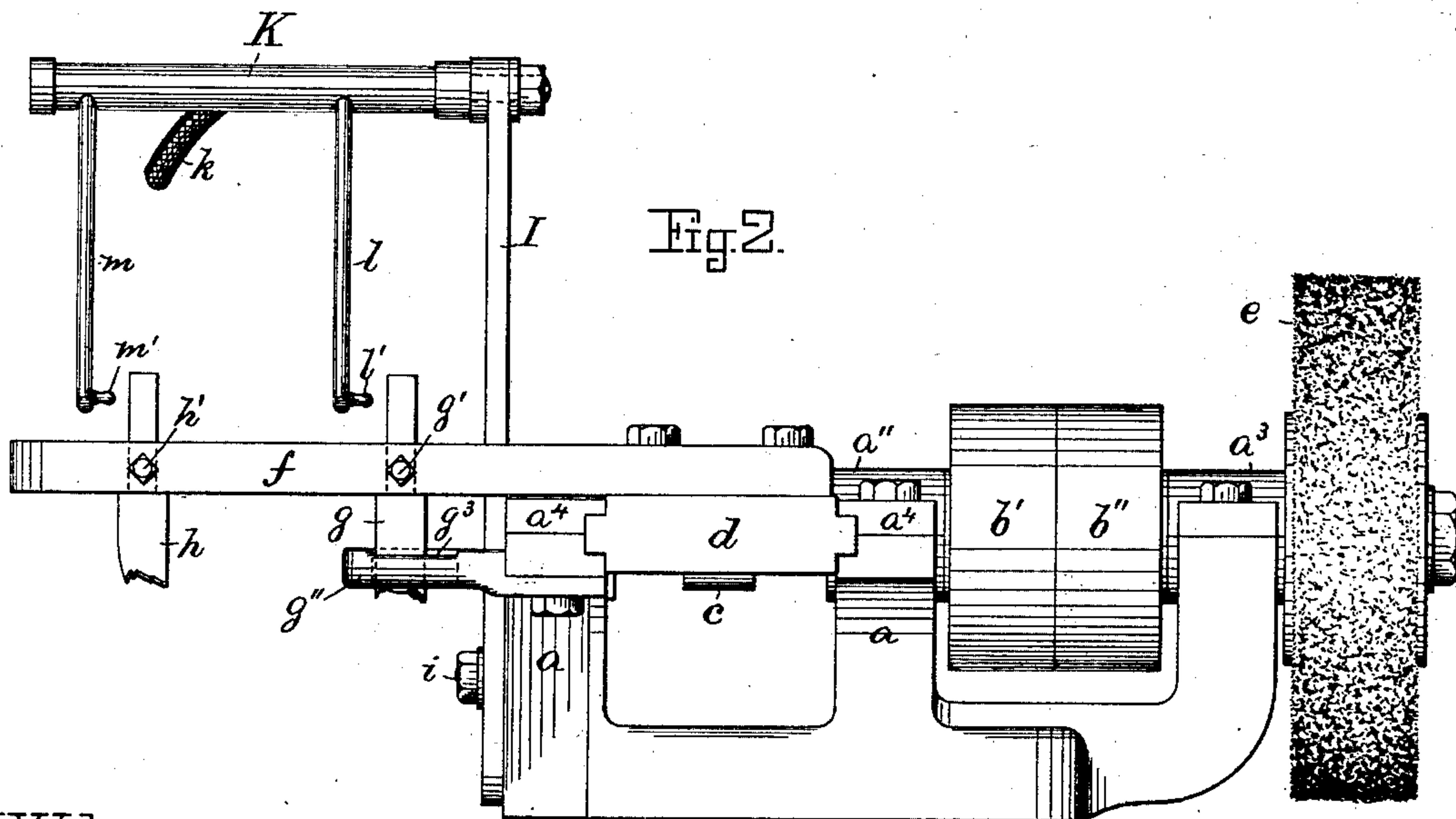


Fig. 2.



Witnesses

Henry Chadbourne.

Harry W. Robinson.

Inventor

Patrick McLaughlin.

By *Alban Andren, his atty.*

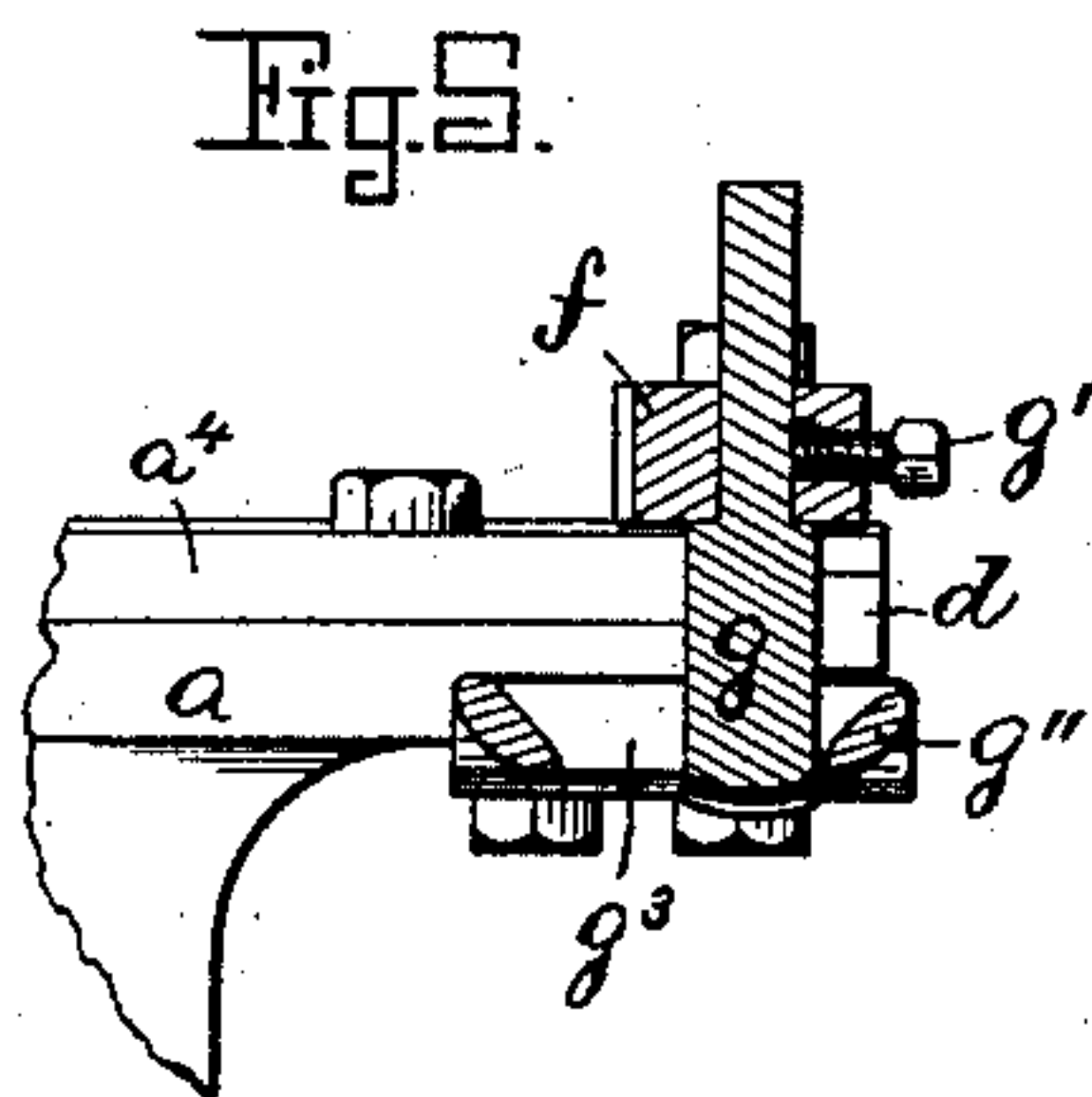
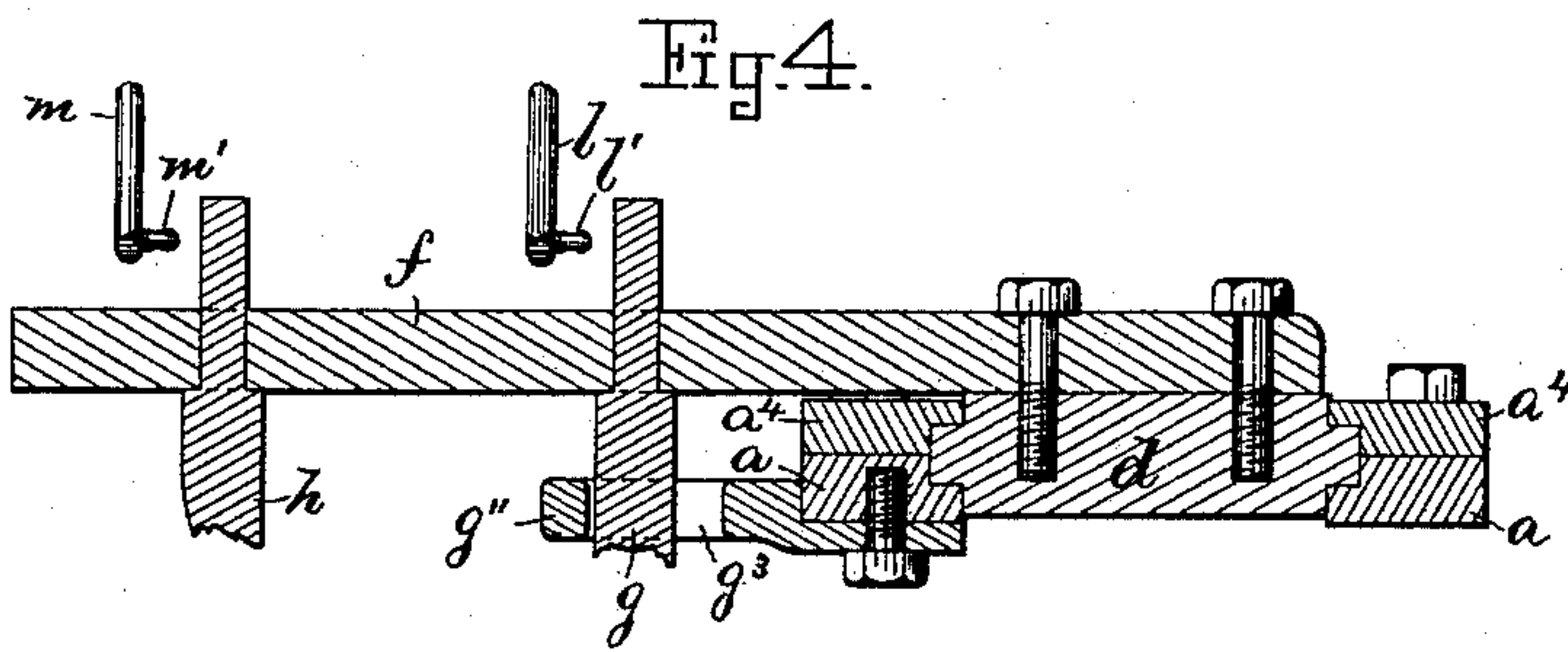
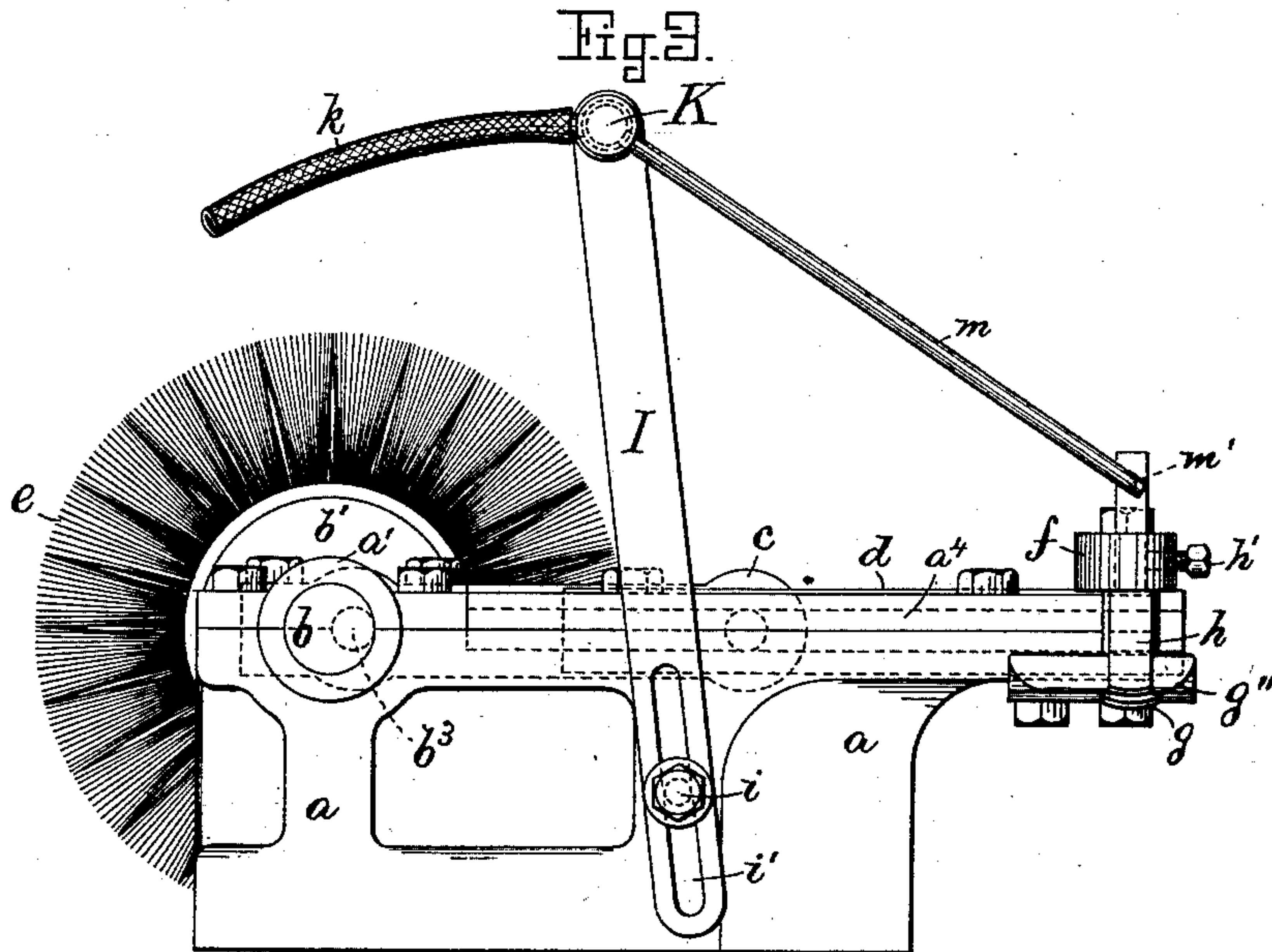
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Witnesses  
Henry Chadbourne  
Harry W. Robinson.

Inventor  
Patrick McLaughlin  
by Alban Andronis atty.



# UNITED STATES PATENT OFFICE.

PATRICK McLAUGHLIN, OF QUINCY, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO JOHN E. DRAKE, OF SAME PLACE.

## EDGE-SETTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 374,314, dated December 6, 1887.

Application filed May 2, 1887. Serial No. 236,769. (No model.)

*To all whom it may concern:*

Be it known that I, PATRICK McLAUGHLIN, a citizen of the United States, and a resident of Quincy, in the county of Norfolk and State of Massachusetts, have invented new and useful Improvements in Edge-Setting Machines, of which the following, taken in connection with the accompanying drawings, is a specification.

10 This invention relates to improvements in edge-setting machines for boots or shoes, and it is carried out as follows, reference being had to the accompanying drawings, wherein—

15 Figure 1 represents a plan view of the improved machine. Fig. 2 represents a front view of it, and Fig. 3 represents a side elevation seen from A in Fig. 1. Fig. 4 represents a cross-section on the line A B; and Fig. 5 represents a cross-section on the line C D, shown 20 in Fig. 1.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

25 *a* is a suitable frame, in bearings *a'* *a''* *a'''* of which is located the rotary driving-shaft *b*, provided with fast and loose pulleys *b'* *b''*, as shown in Figs. 1 and 2. The shaft *b* has on it between the bearings *a'* and *a''* a crank or eccentric, *b<sup>3</sup>*, to which is pivoted the rear end of the connecting-rod *c*, the forward end of which 30 is pivoted to the block *d*, that is guided in longitudinal grooves made in the frame *a* and its cap-plates *a<sup>4</sup>* *a<sup>4</sup>*, as shown in the drawings, and by this arrangement a reciprocatory motion is 35 imparted to the block *d* from the rotary crank-shaft *b* *b<sup>3</sup>*. If so desired, a circular brush, *e*, may be secured to one end of the shaft *b* for the purpose of making a wax finish on the boot or shoe sole edges, as is usual in machines of 40 this kind.

To the reciprocatory block *d* is secured at a right angle, or nearly so, the tool-carrier *f*, in perforations in which are vertically adjustable the edge-setting tools *g* and *h*, such tools 45 being secured in place on the tool-carrier *f* by means of set-screws *g'* *h'* or equivalent devices. By having the tool-carrier *f* arranged as shown—that is, projecting at a right angle to one side of the stationary frame *a*—the operator has abundant space in which to freely 50 handle and manipulate the work to be done,

and as very little obstruction is made to his vision he can easily see at all times the progress of the work.

The tool *g* is intended for the purpose of setting the sole-edge around the toe and sides of the sole, and the tool *h* is adapted for use in setting the edge at the shank portions of the sole-edge.

In connection with the tool *g*, I use a stationary guard, *g''*, secured to the frame *a* in a suitable manner, and said guard is provided with a vertical perforation, *g<sup>3</sup>*, through which the lower end of the tool *g* projects and in which it can move freely forward and back. 60 This guard *g''* has a convex under surface, as shown in Figs. 2, 3, and 5, and it serves to protect the shoe-upper or edge of the sole from injury in case the shoe-sole is accidentally run off from the tool during the operation of setting the edge of the toe and side portions of the sole-edge. The guard *g''* does not serve as a rest for the sole, and the latter is not intended to come in contact with or to bear against said guard, except when the sole is accidentally run 75 off from the tool, when it serves as a guard to prevent injury to the sole edge or shoe-upper.

In connection with the tools *g* and *h*, I use an adjustable heating device that is carried out as follows: To the side of the frame *a*, I secure 80 by means of a set-screw, *i*, or similar device, the arm or bar *I*, the latter having in its lower end a slot, *i'*, through which passes the afore-said set-screw *i*, as shown in Figs. 1, 2, and 3, and by this arrangement the bar or arm *I* may 85 be adjusted up or down, or swung forward or back relative to the frame *a*, according to the desired position of the flames or burners. To the upper end of the arm *I* is pivoted the horizontal pipe *K*, which may be freely turned 90 around its axis in its bearing in the upper end of the arm *I*. If gas is to be used as a heating medium, I provide the pipe *K* with a flexible pipe, *k*, leading from any suitable gas-supply in the building. To the pipe *K* are secured 95 the pipes *l* and *m*, having gas burners or wicks *l'* *m'* in their forward ends, arranged at right angles to the respective pipes *l* *m*, as shown in Figs. 1 and 2, so as to cause the flames from said wicks or burners to heat the upper ends 100 of the tools *g* and *h*. Where it is not convenient to use gas, I use the pipe *K* as an oil-res-



ervoir and lead wicks from it through the pipes *l* and *m* to effect the proper heating of the tools *g* and *h*. By the arrangement of the adjustable arm *I*, the pipe *K*, turning therein, and the heater-pipes *l m*, secured to pipe *K*, it will be seen that I can easily adjust the positions of the burners or wicks *l' m'* relative to the tools *g h*, as may be desired, before, during, and after the performance of setting the sole-edges, and this can be done without causing the flames from the wicks or burners to come in contact with or injure the work. As may be desired, the burners or wicks *l' m'* may be so adjusted by the means above described as to cause the flames to heat the upper or lower parts of the tools *g h*, according to the heat required on the latter, and may as easily be swung out of reach of the said tools whenever so desired.

20 This machine is very simple and compact in construction. It can be run at a great speed with a minimum of power. The progress of the work can easily be ascertained at all times. All accidental injury to the sole-edge or upper

25 is prevented by the use of the perforated stationary guard, and the heating device for heating the reciprocatory tools is made so adjustable as to be under the instant control of the operator, and so arranged as to prevent the

30 flames from coming in contact with or injuring the work.

What I wish to secure by Letters Patent, and claim, is—

1. The improved edge-setting machine, as

described, consisting of the frame *a*, the rotary crank-shaft *b b'*, located in bearings therein, the connecting-rod *c*, connected to crank *b'*, and the reciprocatory block *d* having secured to its forward end the tool-carrier *f*, projecting to one side of the frame *a*, and having adjustably secured to it the edge-setter tools *g h*, as and for the purpose set forth.

2. The stationary frame *a* and the block *d*, adapted to be reciprocated therein, and the tool-carrier *f*, secured to the block *d* and having adjustably secured to it the edge-setter tool *g*, in combination with the stationary guard *g'*, having perforation *g''*, through which the lower portion of the tool *g* projects, as and for the purpose set forth.

3. In an edge-setting machine, the herein-described adjustable heating device, consisting of the arm *I*, having slot *i'* and set-screw *i*, by means of which it is adjusted and secured to the frame *a*, said arm having pivoted to its upper end the horizontal pipe *K*, provided with pipes *l m*, having the side wicks or burners *l' m'*, combined with the reciprocatory edge-setter tools *g h*, as and for the purpose set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 26th day of November, A. D. 1886.

PATRICK McLAUGHLIN.

Witnesses:

ALBAN ANDRÉN,  
CHARLES H. FOGG.