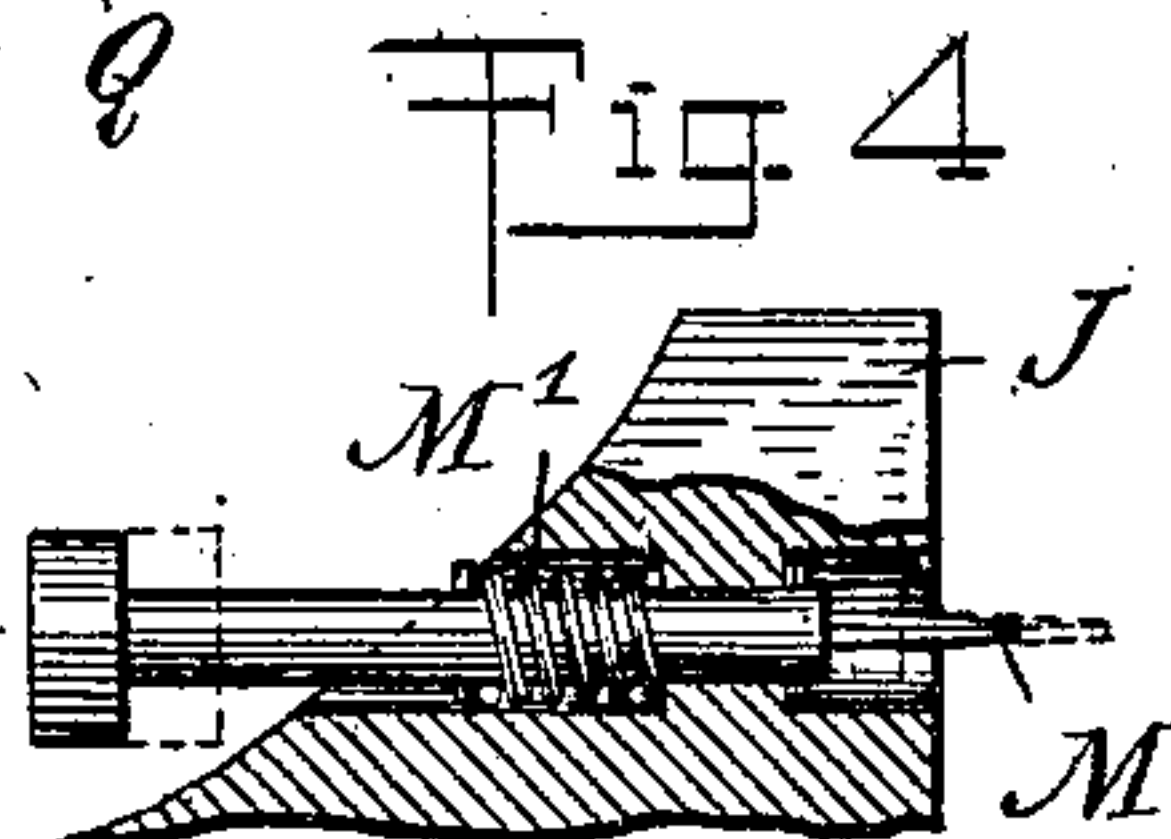
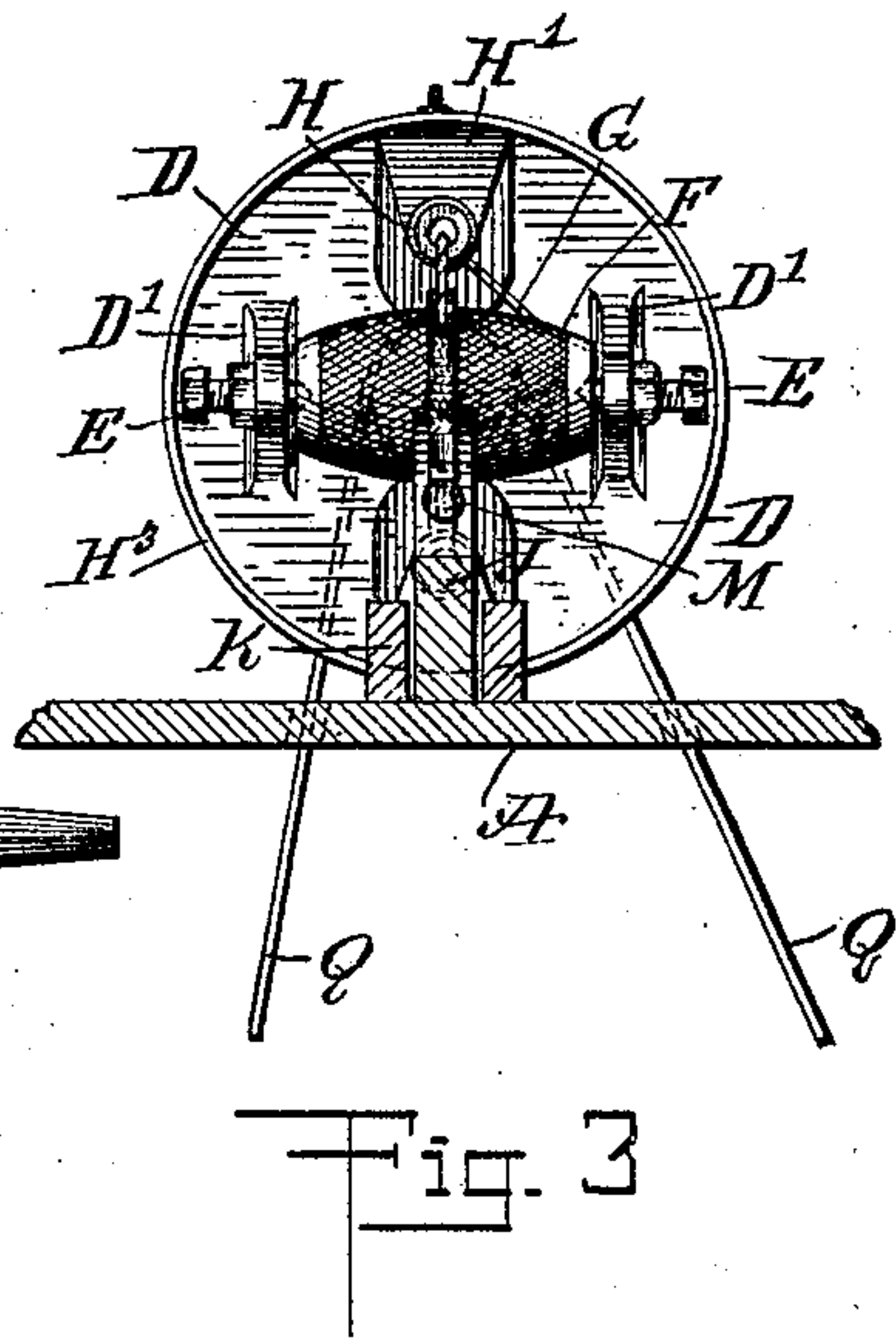
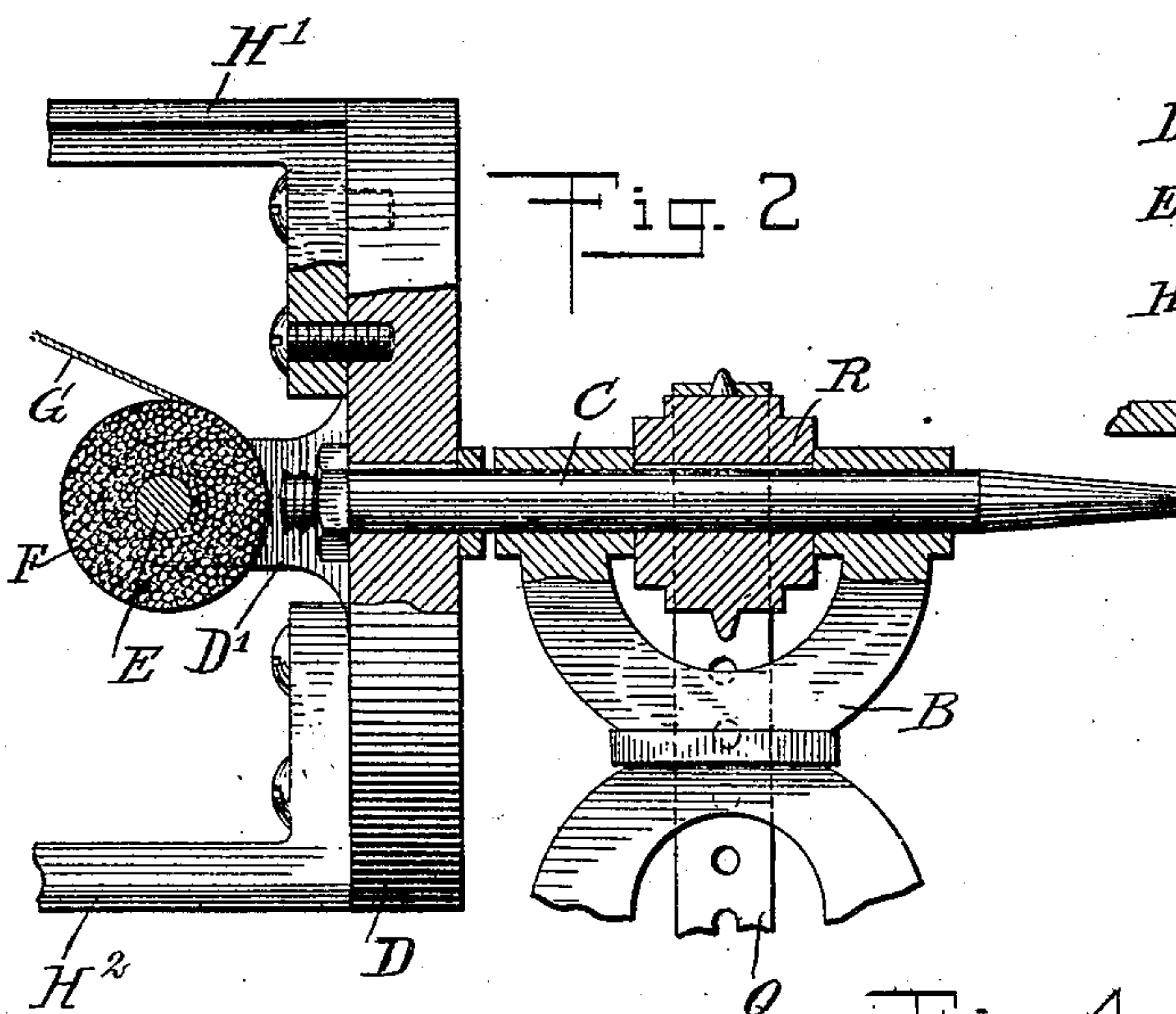
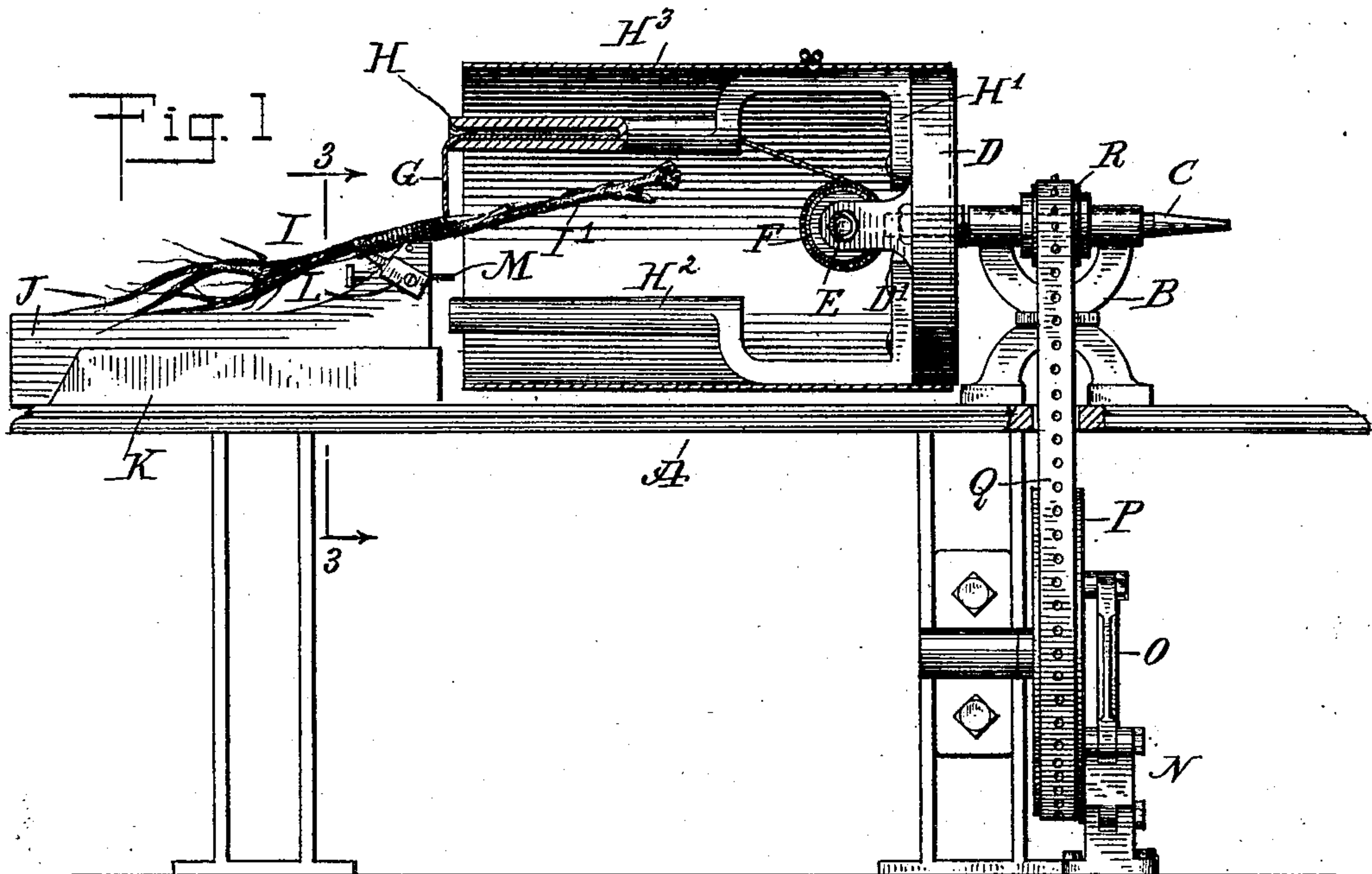


No. 886,923.

PATENTED MAY 5, 1908.

W. H. BELL.  
MACHINE FOR WRAPPING GRAFTS.

APPLICATION FILED FEB. 5, 1908.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

WILLIAM HARLEY BELL, OF HUNTSVILLE, ALABAMA.

## MACHINE FOR WRAPPING GRAFTS.

No. 886,923.

Specification of Letters Patent.

Patented May 5, 1908.

Application filed February 5, 1908. Serial No. 414,355.

*To all whom it may concern:*

Be it known that I, WILLIAM H. BELL, a citizen of the United States, and a resident of Huntsville, in the county of Madison and State of Alabama, have invented a new and Improved Machine for Wrapping Grafts, of which the following is a full, clear, and exact description.

The invention relates to grafting, and its object is to provide a new and improved machine for wrapping twine or the like around the stock and scion, with a view to quickly and securely fasten the scion in place on the stock.

The invention consists of novel features and parts and combinations of the same, which will be more fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the improvement; Fig. 2 is an enlarged longitudinal sectional elevation of the same; Fig. 3 is a transverse section of the same on the line 3—3 of Fig. 1, and Fig. 4 is an enlarged sectional side elevation of the twine-cutting mechanism.

On a suitably constructed stand A is mounted a bearing B, in which is journaled a shaft C carrying a wheel D, provided on its face with lugs D' for supporting centers E, carrying a twine holder or a spool F, from which unwinds the twine G, to pass forward into and through a twine wrapping tube H, provided at its rear end with a curved bracket H' secured to the face of the wheel D.

By the arrangement described, the twine holder F is centrally supported in front of the wheel D, and the twine wrapping tube H is arranged parallel to the axis of the wheel D, and consequently when the wheel D is rotated, the twine wrapping tube H is carried bodily around in a circle.

The twine G passes out of the front end of the twine wrapping tube H and is wrapped by the latter around the joint of the stock I and scion I', to securely fasten the same together.

In order to prevent wobbling of the twine wrapping tube H and breaking of the twine G at a point between the wrapping tube H, the stock I and scion I', a counterbalancing tube H<sup>2</sup> is provided and secured to the face

of the wheel D diametrically opposite the tube H; and both tubes H and H<sup>2</sup> are preferably inclosed in a cylindrical tube or hood H<sup>3</sup>, secured to the wheel D and terminating a short distance from the terminals of the tube H and H<sup>2</sup>.

The stock I and the scion I' are supported on a manually operated support J, mounted to slide lengthwise in suitable bearings K arranged on the stand A, the top or the support J bringing the joint of the stock I and scion I' approximately in axial alinement with the wheel D.

In order to hold the stock I and the scion I' in a slightly inclined position, as indicated in Fig. 1, the support is cut out at its rear portion, as indicated in Fig. 1. A lug L is secured to one side of the support J, to hold the stock I and the scion I' against transverse movement during the wrapping operation.

In order to cut the twine G after the wrapping operation is completed, a manually controlled cutter M is employed and mounted to slide longitudinally in the support J, the said cutter M being normally held in a retracted position by a spring M', as plainly shown in Fig. 4. As soon as the wrapping operation is completed, the operator pushes the cutter M to the right to bring the cutting edge into the path of the twine G, to cut the same at a point between the tube H and the stock I and scion I', thus leaving the twine projecting beyond the end of the tube H in convenient reach of the operator, for the next wrapping operation.

The wheel D may be rotated in any suitable manner by hand or by power, preferably, however, by foot power, as illustrated in Fig. 1. For the purpose mentioned a treadle N, connected with the floor is connected by its pitman O with a crank wheel P, journaled on the stand A, and the said wheel P is connected by a belt Q, with a pulley R secured on the shaft C, so that when the treadle N is actuated the wheel P and the pulley R are rotated, to cause rotation of the wheel D.

By the operation described, the operator can conveniently place the jointed stock I and the scion I' in position on the support J, and then by taking hold of the outer end of the twine G and pressing the same in contact with the jointed stock and scion, and rotating the wheel D, the twine is quickly



wrapped around the joint of the stock I and the scion I', to securely unite the same. After the desired amount of twine has been wrapped around the stock I and scion I', then the operator pushes the cutter M forward to cut the twine as above described.

A large number of grafts can be readily wrapped in the manner described in a comparatively short time.

10 The machine is very simple and durable in construction, and not liable easily to get out of order.

Having thus described my invention, I claim as new and desire to secure by Letters 15 Patent:

1. A machine for wrapping grafts, comprising a support for the stock and scion, a twine wrapping tube having bodily movement around the stock and scion, and a twine 20 spool from which the wrapping twine unwinds for passing to and through the said twine wrapping tube.

2. A machine for wrapping grafts, comprising a twine wrapping tube for the passage 25 of the twine to be wrapped around the stock and the scion, a wheel mounted to turn and on which the twine wrapping tube is secured approximately parallel to the axis of the wheel, and a twine holder mounted on 30 the face of the wheel for delivering the twine to the said twine wrapping tube.

3. A machine for wrapping grafts, comprising a slidable support for the stock and scion, a twine wrapping tube for the passage 35 of the twine to be wrapped around the stock and the scion, a wheel mounted to turn and on which the twine wrapping tube is secured approximately parallel to the axis of the wheel, and a twine holder mounted on the 40 face of the wheel for delivering the twine to the said twine wrapping tube.

4. A machine for wrapping grafts, comprising a wheel mounted to turn, a twine 45 holding spool journaled on the face of the said wheel, a twine wrapping tube provided at its inner end with a curved bracket attached to the face of the wheel a distance from the center thereof, to hold the said 50 twine wrapping tube parallel to the axis of the said wheel, the twine passing from the said spool to the inner end of the said twine wrapping tube, and through the same out of the forward end of the tube, and a support

for the stock and scion arranged in a plane extending through the axis of the said wheel.

5. A machine for wrapping grafts, comprising a wheel mounted to turn, a twine holding spool journaled on the face of the said wheel, a twine wrapping tube provided at its inner end with a curved bracket attached to the face of the wheel a distance 60 from the center thereof, to hold the said twine wrapping tube parallel to the axis of the said wheel, the twine passing from the said spool to the inner end of the said twine wrapping tube and through the same, out of the forward end of the tube, and a support for the stock and scion mounted to slide 65 longitudinally in a plane extending through the axis of the said wheel.

6. A machine for wrapping grafts, comprising a slidable support for the stock and scion, a twine wrapping tube for the passage 70 of the twine to be wrapped around the stock and the scion, a wheel mounted to turn and on which the twine wrapping tube is secured approximately parallel to the axis of the wheel, a twine holder mounted on the face 75 of the wheel for delivering the twine to the said twine wrapping tube, and a cutter for cutting the twine at a point between the said 80 tube and the said support.

7. A machine for wrapping grafts, comprising a wheel mounted to turn, a twine holding spool journaled on the face of the 85 said wheel, a twine wrapping tube provided at its inner end with a curved bracket attached to the face of the wheel a distance from the center thereof, to hold the said twine wrapping tube parallel to the axis of 90 the said wheel, the twine passing from the said spool to the inner end of the said twine wrapping tube and through the same, out of the forward end of the tube, a support for the stock and scion mounted to slide longitudi- 95 nally in a plane extending through the axis of the said wheel, and a spring-pressed cutter mounted to slide in the said support, for cutting the twine.

In testimony whereof I have signed my 100 name to this specification in the presence of two subscribing witnesses.

WILLIAM HARLEY BELL.

Witnesses:

W. J. JANES,  
MINNIE I. BELL.