

J. T. RAWSTHORNE & J. PRYKE.
PANTOGRAPH ENGRAVING MACHINE.
APPLICATION FILED APR. 3, 1908.

921,738.

Patented May 18, 1909.
3 SHEETS—SHEET 1.

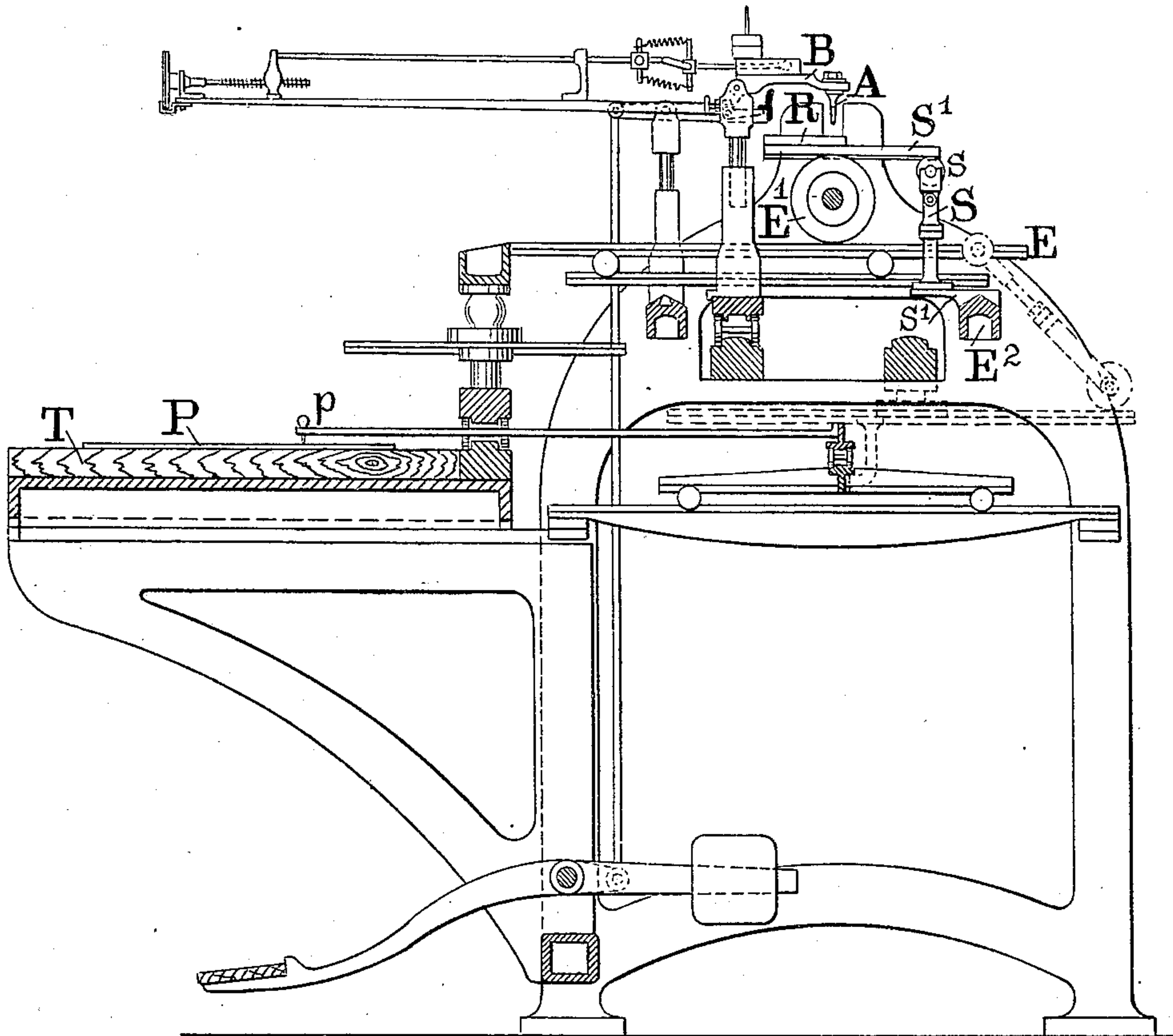


Fig. 1.

WITNESSES.

Joseph Bates.
E. Howard

INVENTORS.

J. T. Rawsthorne
John Pryke
W. C. Lowman
att'y

J. T. RAWSTHORNE & J. PRYKE.
PANTOGRAPH ENGRAVING MACHINE.
APPLICATION FILED APR. 3, 1908.

921,738.

Patented May 18, 1909.
3 SHEETS—SHEET 2.

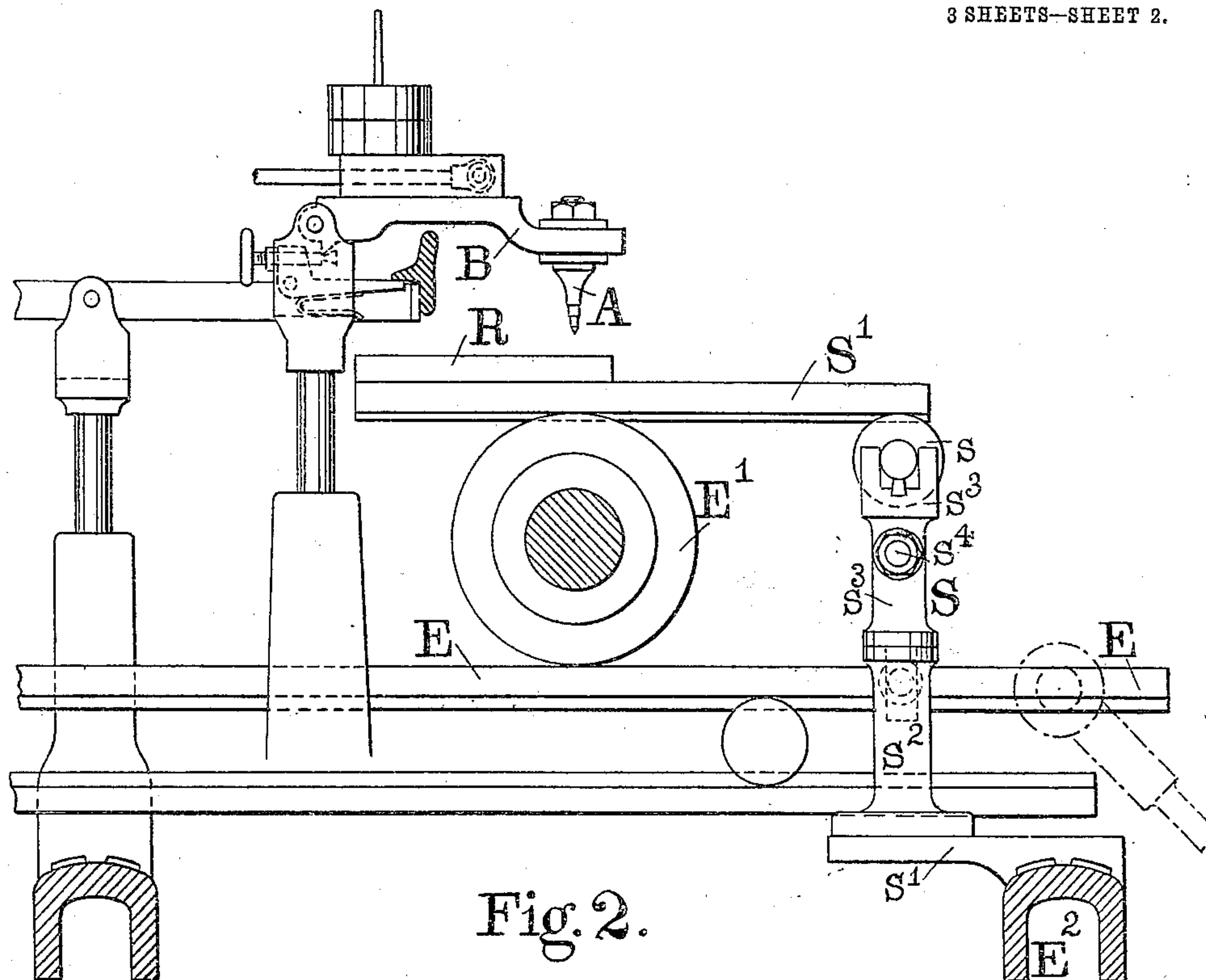


Fig. 2.

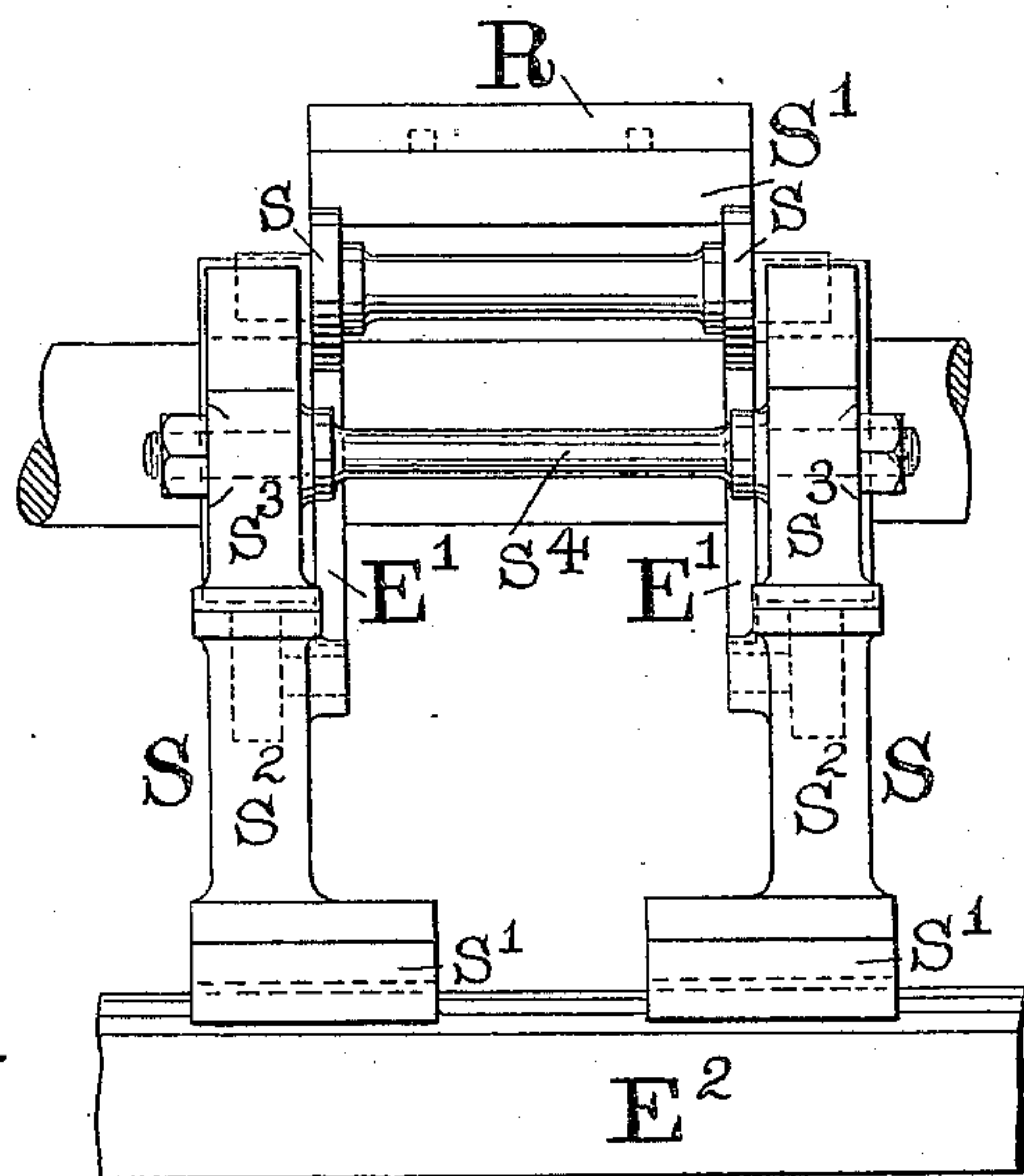


Fig. 3.

WITNESSES.

Joseph Prates.
E. Howard

INVENTORS.

J. T. Rawsthorne
John Pryke
J. O. S. Rawsthorne
Paty

APPLICATION FILED APR. 3, 1908.

3 SHEETS—SHEET 3.



Joseph Bates.
E. Howard

J. A. Rawsthorne
John Pryke
to C. O. Wainwright
att'y

UNITED STATES PATENT OFFICE.

JOSEPH TWEEDALE RAWSTHORNE AND JOHN PRYKE, OF DINTING, ENGLAND.

PANTOGRAPH ENGRAVING-MACHINE.

No. 921,738.

Specification of Letters Patent.

Patented May 18, 1909.

Application filed April 3, 1908. Serial No. 425,072.

To all whom it may concern:

Be it known that we, JOSEPH TWEEDALE RAWSTHORNE and JOHN PRYKE, British subjects, and residents both of Dinting, Derbyshire, England, have invented certain new and useful Improvements in Pantograph Engraving-Machines, of which the following is a specification.

This invention relates to certain improvements in what are known as pantograph engraving machines such as described in the specification of Barr's American Patent No. 824088 of 1906 in which an indenting punch is employed at the back of the machine.

In the specifications of our applications for Patents Serial Nos. 396251 and 396252, we described improvements and additions to the pantograph machine which enabled the machine to be successfully applied to the engraving of ordinary dies or rollers with varying gradations of light and shade.

The invention is designed to render the pantograph engraving machine capable of engraving flat dies or plates.

The invention will be fully described with reference to the accompanying drawings forming part of the specification.

Figure 1. is a side elevation partly in section of pantograph engraving machine showing the invention applied thereto. Fig. 2. side elevation enlarged of part of same machine. Fig. 3. end elevation of Fig. 2. Fig. 4. side elevation enlarged of part of machine with engraving drill, showing the invention applied thereto.

The machine is constructed in the usual way as described in the former specifications, the punch A, Figs. 1 and 2, and the drill A', Fig. 4, being mounted on a hinged or pivoted bar B and the disks E' by which the die is moved beneath the punch A or drill A' being rotated by the movement of the rail E. To adapt this machine which has hitherto been applicable only to cylindrical dies or rollers, to flat dies or plates, upon the transverse rail E² we mount two vertical stands or brackets S with bowls or runners s at the top and apply thereto a flat carrier plate S' which rests on the supporting disks E' at one edge and on the runners s at the other.

The supporting disks E' are rotated by the longitudinal movement of the rails E in the usual way in accordance with the move-

ment of the pointer p over the pattern plate P and as these disks E' rotate on the rails E they move the flat plate S' backward and forward under the punch A or drill A' to correspond with the to and fro movement of the pointer p over the pattern P on the table T.

The vertical stands or brackets S are preferably made with a bracket s' bolted to the rail E² and an upright piece s² bolted thereto with a socket in the top to receive the lower end of an upper standard s³ which carries the bowls or runners s so that the latter can be easily and readily removed to allow of the use upon the same machine of the brackets V which carry the cylindrical die. The upper standards s³ which carry the bowls or runners s are firmly connected together by a stay bar s⁴. The brackets V shown in dotted lines are the ordinary pivoted brackets of the machine which support a roller while being engraved.

The flat die or plate R to be engraved or punched rests upon the flat plate S' which traverses to and fro on the disks E' and the runners s.

What we claim as our invention and desire to protect by Letters Patent is:—

1. A pantograph engraving machine constructed with supporting disks E' flat carrier plate placed on the supporting disks behind the machine and upright standards provided with runners behind the disks to support the rear edge of the carrier plate, substantially as described.

2. In a pantograph engraving machine the combination with the pivoted punch bar B and means for actuating it, the movable rail E the supporting disks E' thereon and the fixed transverse rail E² of the vertical stands or brackets S provided with a runner s at the top and a flat carrier plate S' resting on the runner s and on the supporting disk E' to carry the flat die R substantially as described.

In witness whereof, we have hereunto signed our names in the presence of two subscribing witnesses.

JOSEPH TWEEDALE RAWSTHORNE.
JOHN PRYKE.

Witnesses:

I. OWDEN O'BRIEN,
H. BARNFATHER.