

(No Model.)

2 Sheets—Sheet 1.

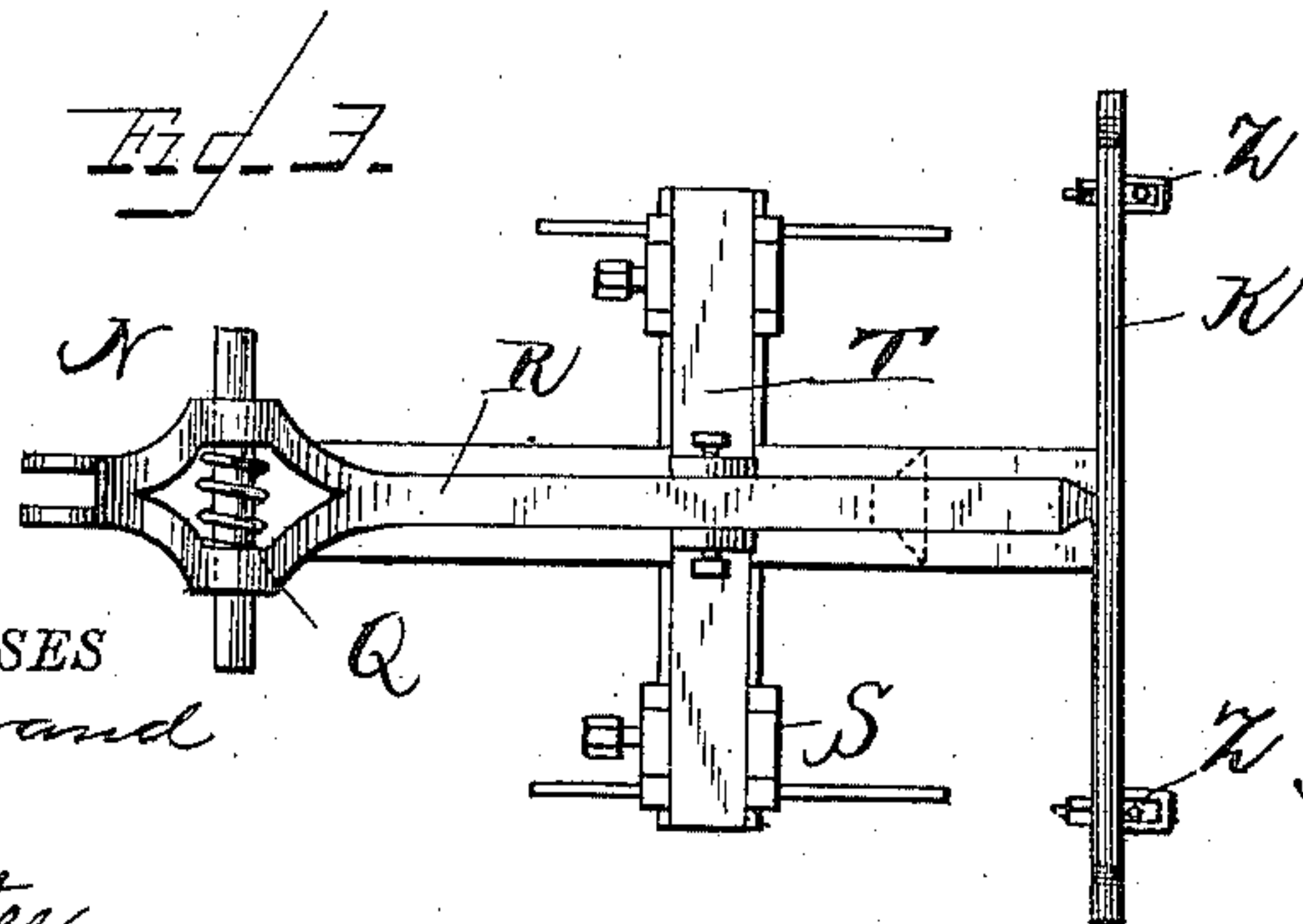
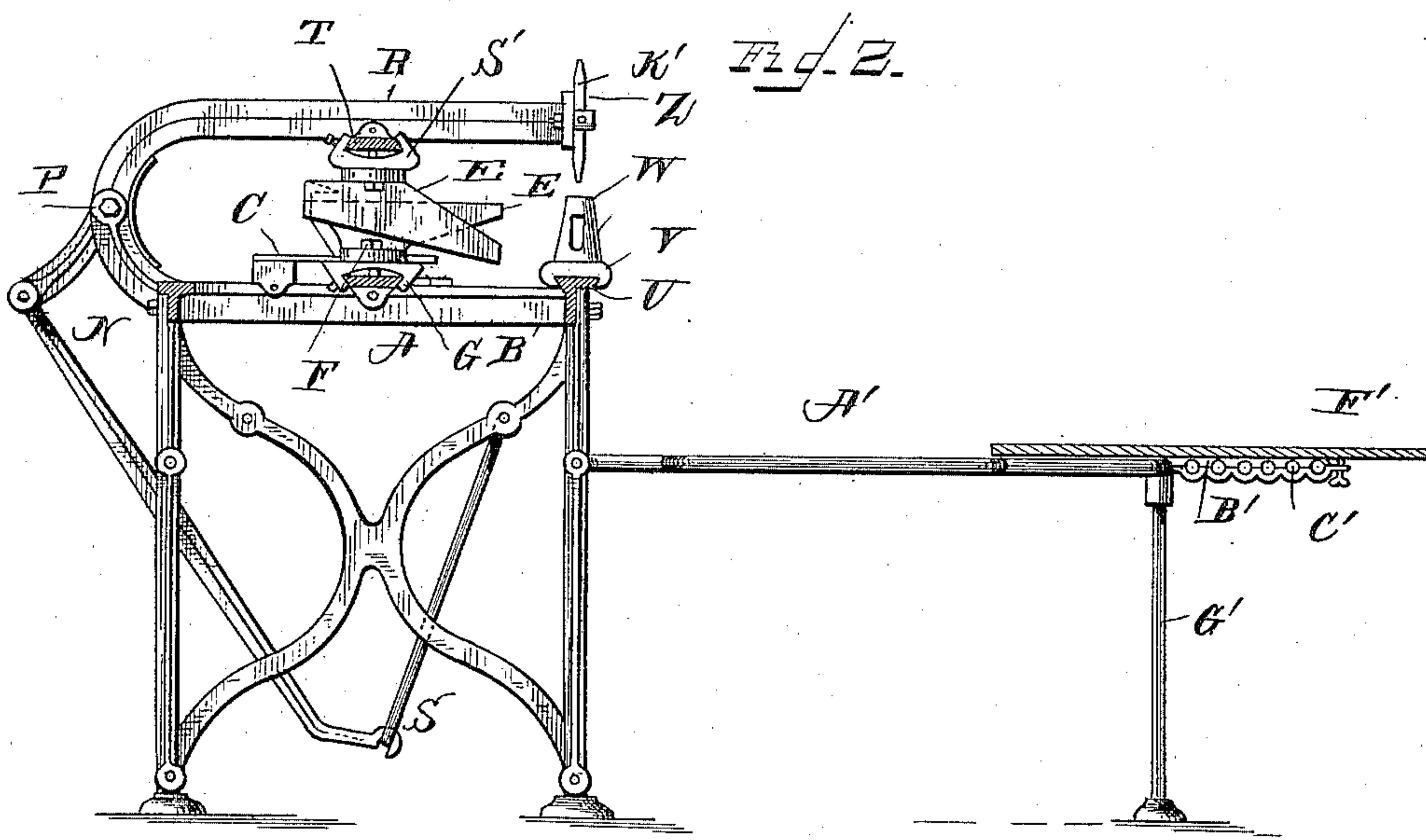
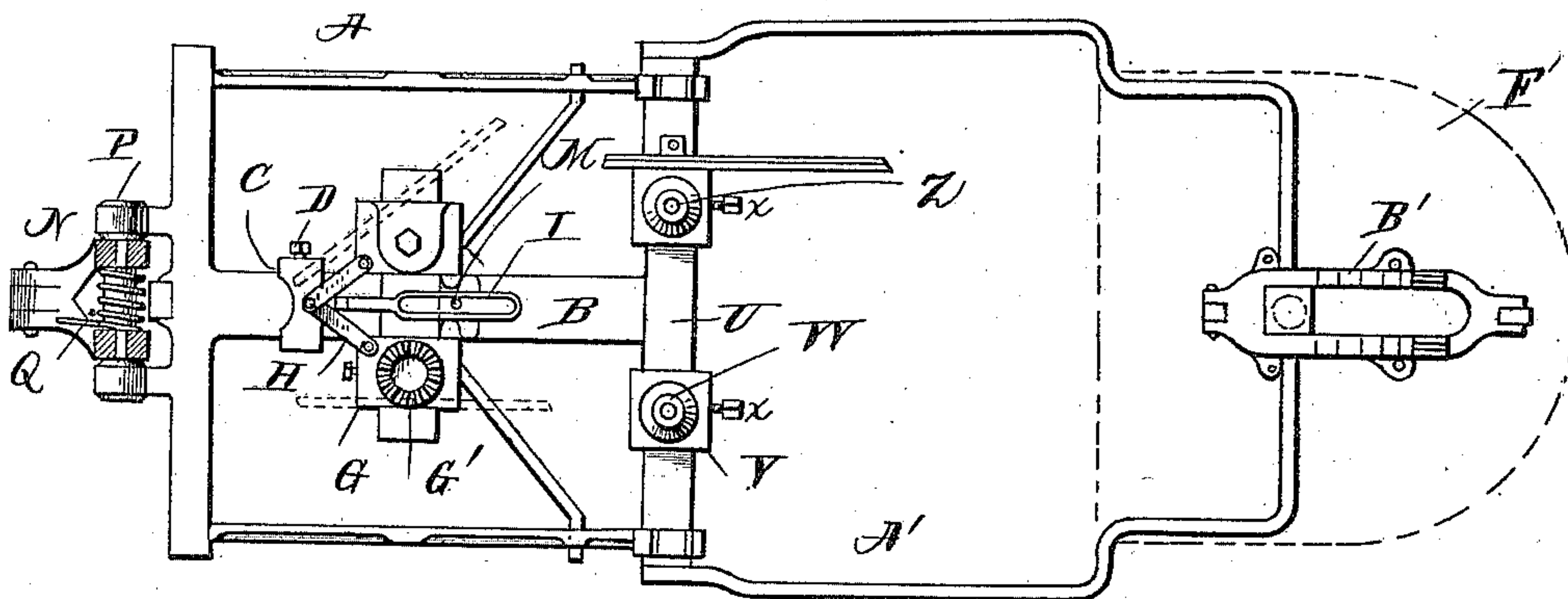
F. R. MARKS.

SLATE DRESSING MACHINE.

No. 330,248.

Patented Nov. 10, 1885.

F1 1



WITNESSES
F. L. Ourand

Bro. Juter

INVENTOR

INVENTOR
Francis R. Marks

By J. E. Barrow & J. A. Fouts
Attorneys

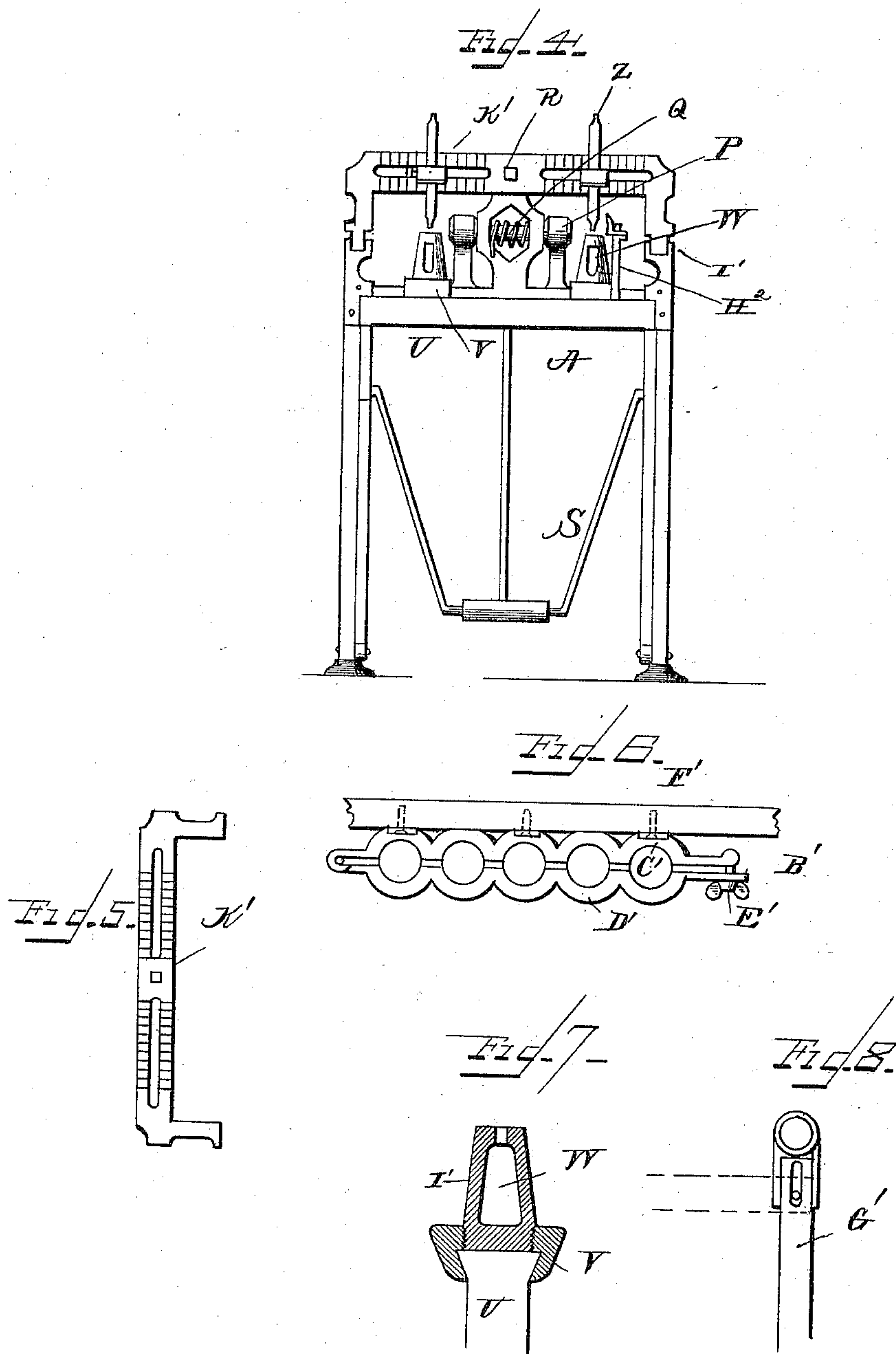
(No Model.)

2 Sheets—Sheet 2.

F. R. MARKS.
SLATE DRESSING MACHINE.

No. 330,248.

Patented Nov. 10, 1885.



WITNESSES
F. L. Curand

Notary

INVENTOR
Francis R. Marks

By J. E. Barrow & F. A. Fouts
Attorneys

UNITED STATES PATENT OFFICE.

FRANCIS R. MARKS, OF ASHLAND, OHIO.

SLATE-DRESSING MACHINE.

SPECIFICATION forming part of Letters Patent No. 330,248, dated November 10, 1885.

Application filed January 23, 1885. Serial No. 153,741. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS R. MARKS, a citizen of the United States, residing at Ashland, in the county of Ashland and State of Ohio, have invented certain new and useful Improvements in Slate-Dressing Machines, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to certain improvements in machines for dressing and punching slates; and it has for its objects to provide improved means for gaging and adjusting the slate to be cut, and for adjusting the cutting and punching mechanism, as more fully hereinafter set forth, and also to provide an adjustable seat for the operator, as more fully hereinafter explained. These objects I attain by the means illustrated in the accompanying drawings, in which—

Figure 1 represents a plan view of my improved machine with a portion of the upper works removed to show the slate-adjusting devices. Fig. 2 represents a vertical sectional view of the machine. Fig. 3 indicates a top view of the vibrating arm which carries the cutting and punching mechanism. Fig. 4 represents a front view of the machine; Fig. 5, a detached view of the punch-gage; Fig. 6, a detached view of a portion of the adjustable seat; Fig. 7, a detached view of one of the slate-supports which set below the punches, and Fig. 8 indicates a detached view of a portion of the seat-support.

The letter A indicates the frame of the machine, which is provided with a central cross-rail, B, at the top, which is T-shaped in cross-section, and has adjustably secured to it a slide, C, provided with a clamping-screw, D, by which it may be held in any desired adjusted position.

The letter E indicates the slate-rests, which are secured by means of the bolts F to the slide G. The rests are arranged to turn upon the bolts F, and are held in an adjusted inclining position by means of the ratcheted or serrated seats G', which engage the similarly-ratcheted bases of the slate-rests, as shown in Fig. 1 of the drawings. The slate-rests are connected by means of the pivoted links H with the slide C, so that the slate-rests may be simultaneously adjusted at the same angle at

each side of the central rail, B, without calculation.

The letter I indicates an adjustable gage, which may be adjusted by means of a set-screw, M, to determine the length of the slate to be cut, the rear end of the slate resting against the rear upward portion of the gage.

The letter N indicates a lever fulcrumed in bearings P at the rear of the machine, the fulcrum-bolt being surrounded by a spiral spring, Q, which holds the knife-arm R normally elevated, the said arm being connected with a treadle, S, by means of which it may be depressed by the foot of the operator to operate the knives and punches for punching and trimming the slate. The knives are mounted on the slides S', which are adjustably secured to the beveled cross-bar T of the vibrating arm in such manner that they may be separated to adjust laterally, and also turned so as to adjust them at angle to each other.

The forward top rail, U, of the frame is beveled in cross-section, and provided with adjustable slides V, which carry the adjustable punch-rests W, the vibrating arm above being provided with a cross-slotted arm, K', having graduations at each side, and carrying the punches Z for piercing the slate. To the front of the frame A is pivoted a frame, A', which has secured to it a half-frame, B', provided with semicircular recesses C', and to said half-frame is hinged a similar frame, D', which is adjustably connected to the frame B' at one end by means of the bolt and set-screw E'. The half-frame B' has secured to it a seat, F', which may be adjusted to and from the machine by setting it back and forth by the adjustment of the half-frame, so as to cause the successive recesses to embrace the front rail of the seat-frame, and thus provide for the proper position of the operator in front of the machine. The seat-frame is supported at its outer end by a vertical standard, G', and the frame and its appendages are so arranged as to be folded up on top of the machine when not in use. The forward standards of the frame A are provided with rubber stops I' for the frame K', carrying the slate-punches, to limit their movement.

In operation the slate is adjusted between the slate-rests, and upon the front supports the rests as well as the knives to cut the slates

to the proper shape, while the punches and front rests are adjusted to pierce the slate at the proper points.

5 The slate-rests E may be either ratcheted or plain, and the slide C and links H may be omitted, if desired, without changing the spirit of my invention.

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

In combination with the rests adapted to hold the slate, the adjusting-slides connected

to the adjustable gage by means of pivoted rods, the ratcheted or serrated seats whereby the rests may be held, and the clamping-bolts 15 whereby the parts may be securely clamped together, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

FRANCIS R. MARKS.

Witnesses:

F. C. SEMPLE,
E. N. HARVARD.