

(No Model.)

E. C. SMITH.
RAIL SAWING MACHINE.

No. 375,959.

Patented Jan. 3, 1888.

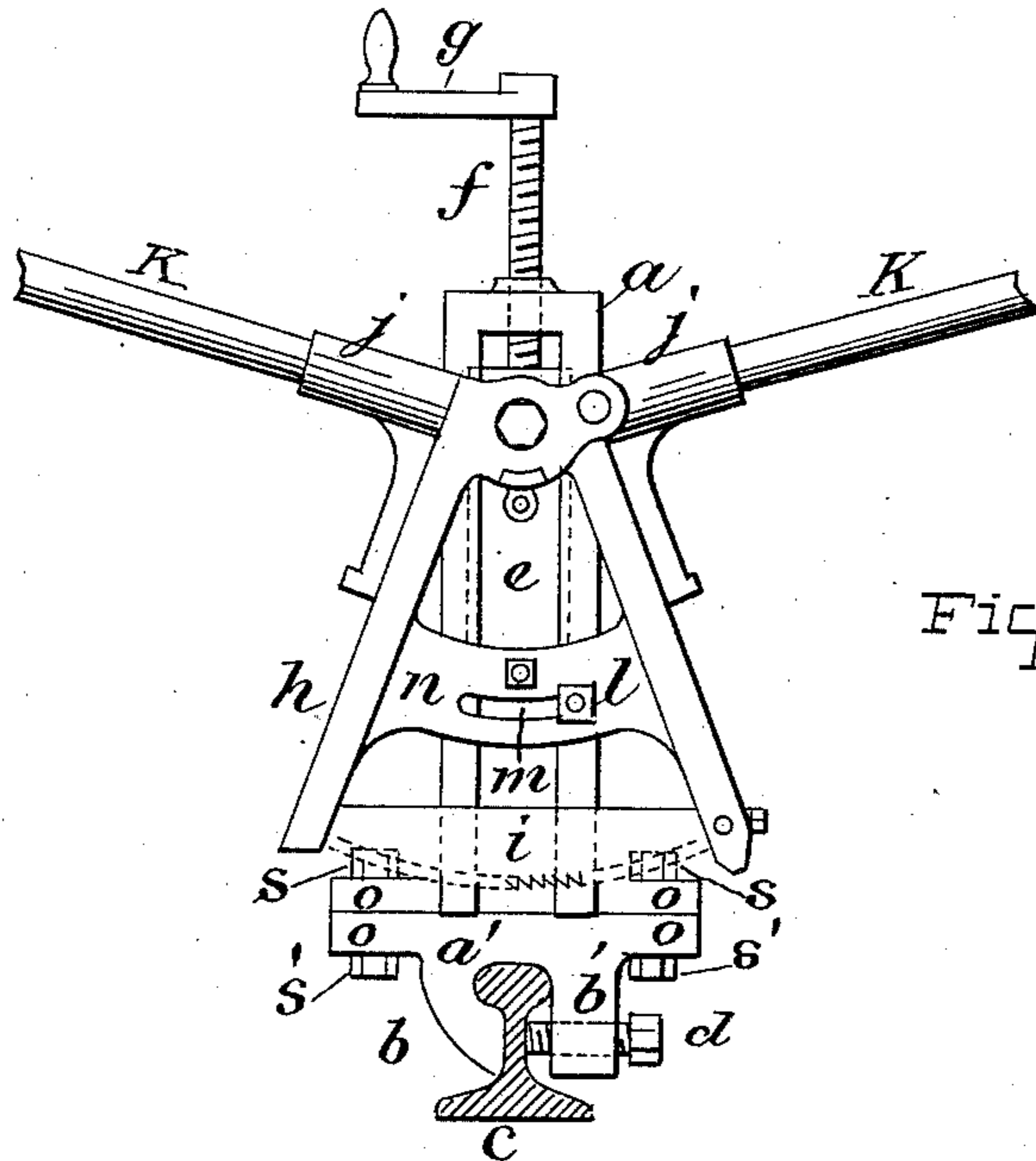


Fig. 1.

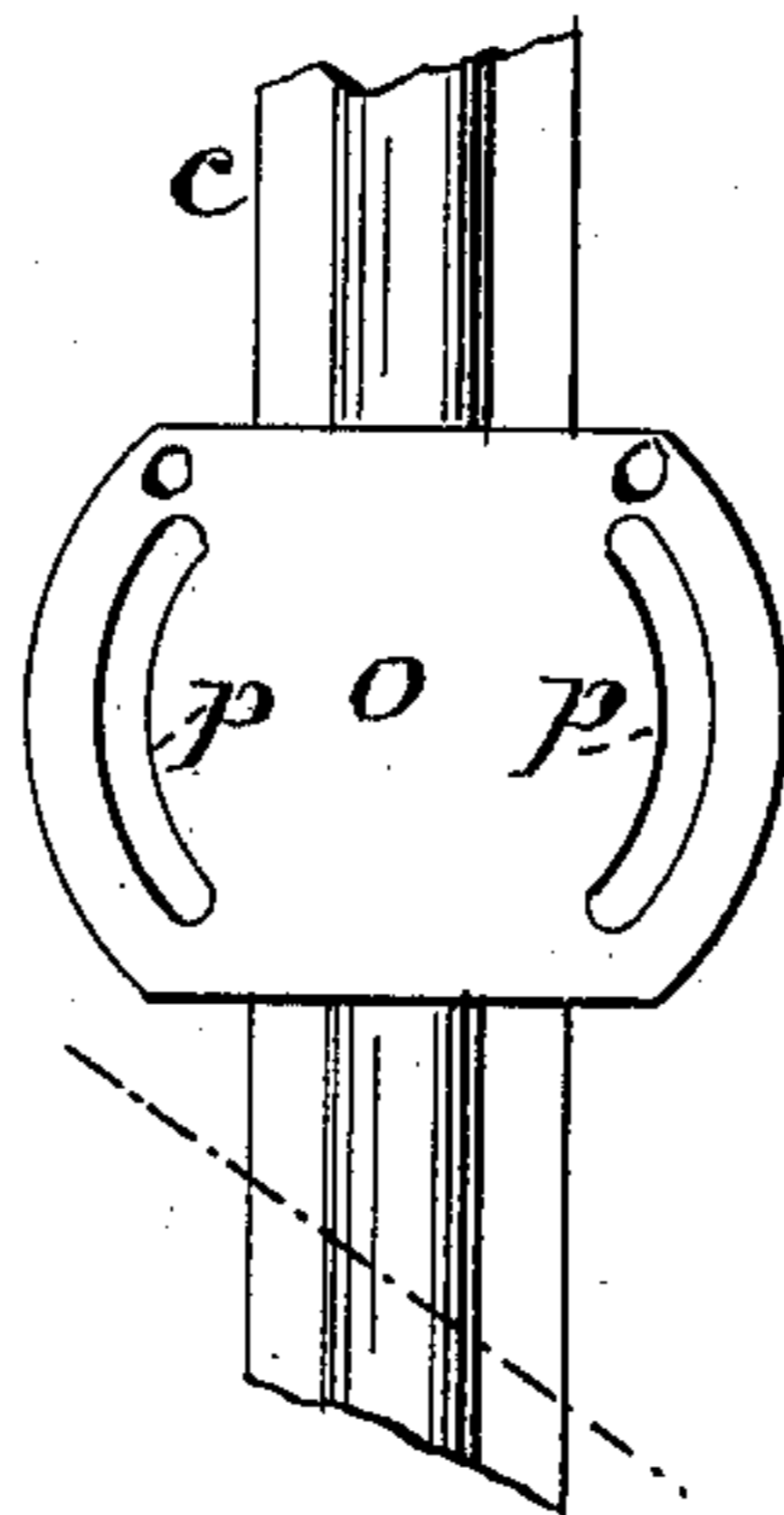


Fig. 2.

ATTEST:

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RAIL-SAWING MACHINE.

SPECIFICATION forming part of Letters Patent No. 375,959, dated January 3, 1888.

Application filed May 24, 1887. Serial No. 239,179. (No model.)

To all whom it may concern:

Be it known that I, EDWARD C. SMITH, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented a certain new and useful Improvement in Rail-Sawing Machines, of which the following is a full, clear, and exact specification, reference being had to the accompanying drawings, forming part of the same.

My invention relates to a certain improvement in rail-sawing machines; and the purpose of my improvement is to provide a means whereby the saw-carrying frame can be readily set at any desired angle in order to make an oblique cut on the rail, and this I accomplish by making the main frame in two parts and swiveling them together, so that the upper part can be turned in any direction desired.

In the accompanying drawings, which fully serve to illustrate my improvement, Figure 1 is a front elevation of a rail-sawing machine embodying my improvement; and Fig. 2 is a top plan view of the stationary base portion, the other part of the frame being removed.

Let *a* represent the main frame as a whole, which is an elongated rectangular frame provided at its lower end with jaws *b b'* to receive the rail *c*, which is firmly clamped thereto by means of the threaded bolt *d*.

e is an inner frame or carriage fitted within the main frame *a* and so arranged as to slide up and down therein. The movement of this carriage is effected through a threaded shaft, *f*, which is journaled to the carriage *e*, and works through a threaded opening in the upper part of the frame *a* and terminates in a crank, *g*, by which it is rotated to lower the carriage.

Pivoted to the face of the sliding carriage *e* is a V-shaped frame, *h*, between the extended arms of which is secured the curved cutting-saw *i*. This frame is provided with upwardly and outwardly extending arms, which are made to terminate in sockets *j j*, into which are inserted handles or levers *k k*, by which the frame *h* may be made to oscillate upon its journal-bearing upon the carriage *e*. A pin, *l*, is made to project outwardly from the sliding carriage *e* through a curved opening, *m*, in the cross-

bar *n* of the saw-frame *h*, to regulate the to-and-fro movement of the said frame. The oscillation of the saw-frame *h* is effected by the movement of the handles *k*, and the carriage is lowered by the rotation of the crank *g*. I may, however, employ any one of the automatic saw-feed devices heretofore shown in my previous applications, if desired, in place of the crank-motion.

For the purpose of enabling the saw to make an oblique cut on the rail I construct the main frame *a* of two parts, as *a* and *a'*, the former of which carries the saw-frame and its operating mechanism and the latter the stationary or base frame to which the rail to be cut is secured and on which the upper frame is made to turn. On the lower and upper faces, respectively, of the two parts *a* and *a'* are provided side flanges, *o o*, and in each of these are formed curved slots *p p*, which receive the bolts, with nuts *s s'*, by means of which the two parts are secured together. In Fig. 2 is shown a top plan of the base-frame *a'*, showing the side flanges and curved slots, and the under and adjacent face of the upper frame is similarly constructed. By loosening the nut the upper frame is set at any desired angle, so that the saw will make an oblique cut on the rail, as shown by dotted lines in Fig. 2.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a rail sawing machine, the combination, with a base frame adapted to receive a rail, of a frame carrying an oscillatory cutting-saw swiveled to said base-frame, as set forth.

2. A rail sawing machine consisting of a main frame carrying an oscillatory cutting-saw and its operating mechanism, and adapted to receive a railway-rail composed of two parts adjustably secured together, whereby the saw can be set obliquely to the rail to be cut, as set forth.

3. The combination of the frames *a* and *a'*, provided with the side flanges, *o*, having curved slots *p* and bolts and nuts *s s'*, as and for the purpose set forth.

EDWARD C. SMITH.

Witnesses:

S. J. JONES,
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