(No Model.) 2 Sheets—Sheet 1.

J. PECKOVER.

STONE SAWING MACHINE.

No. 366,023. Patented July 5, 1887.

FIG. 1

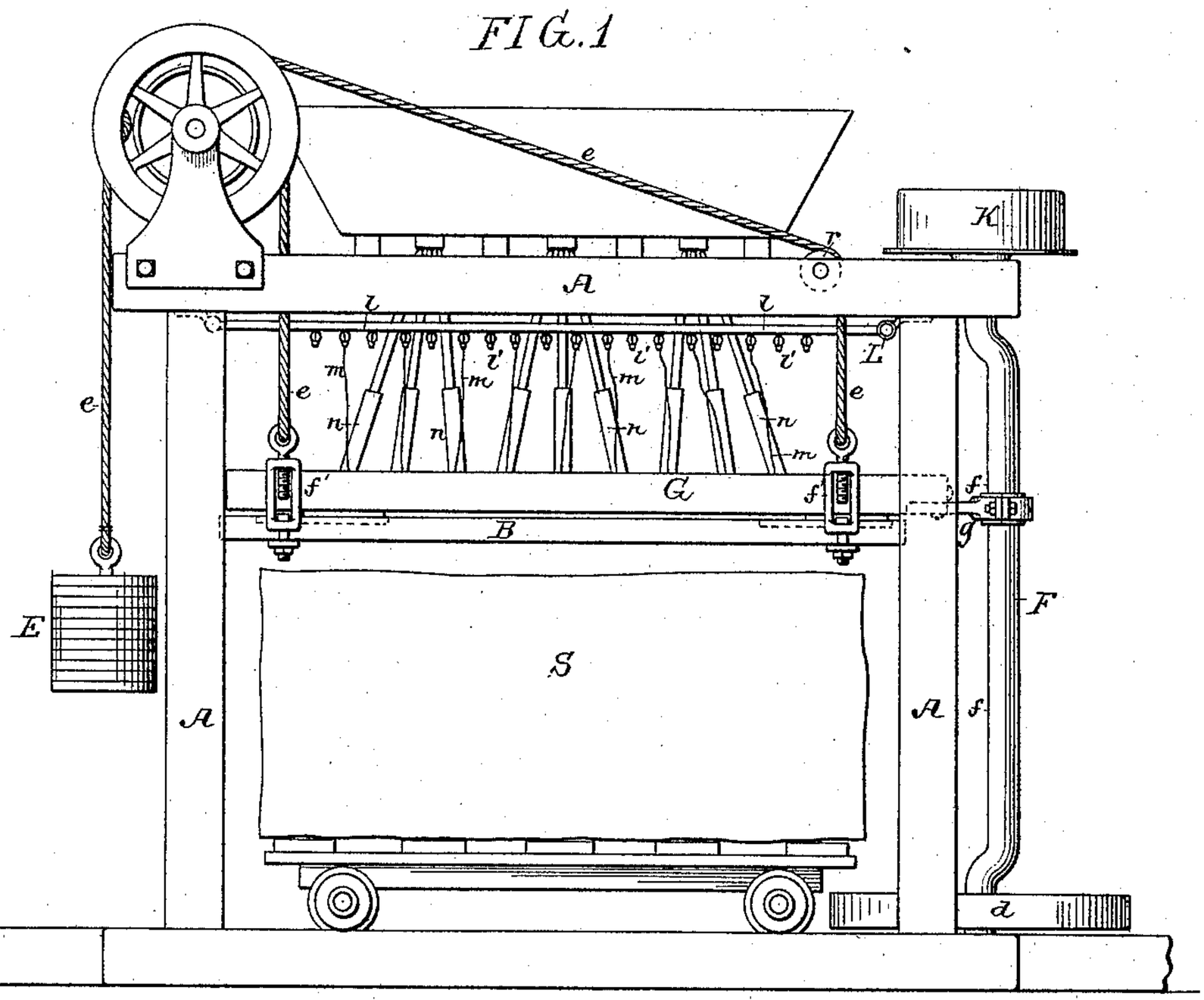
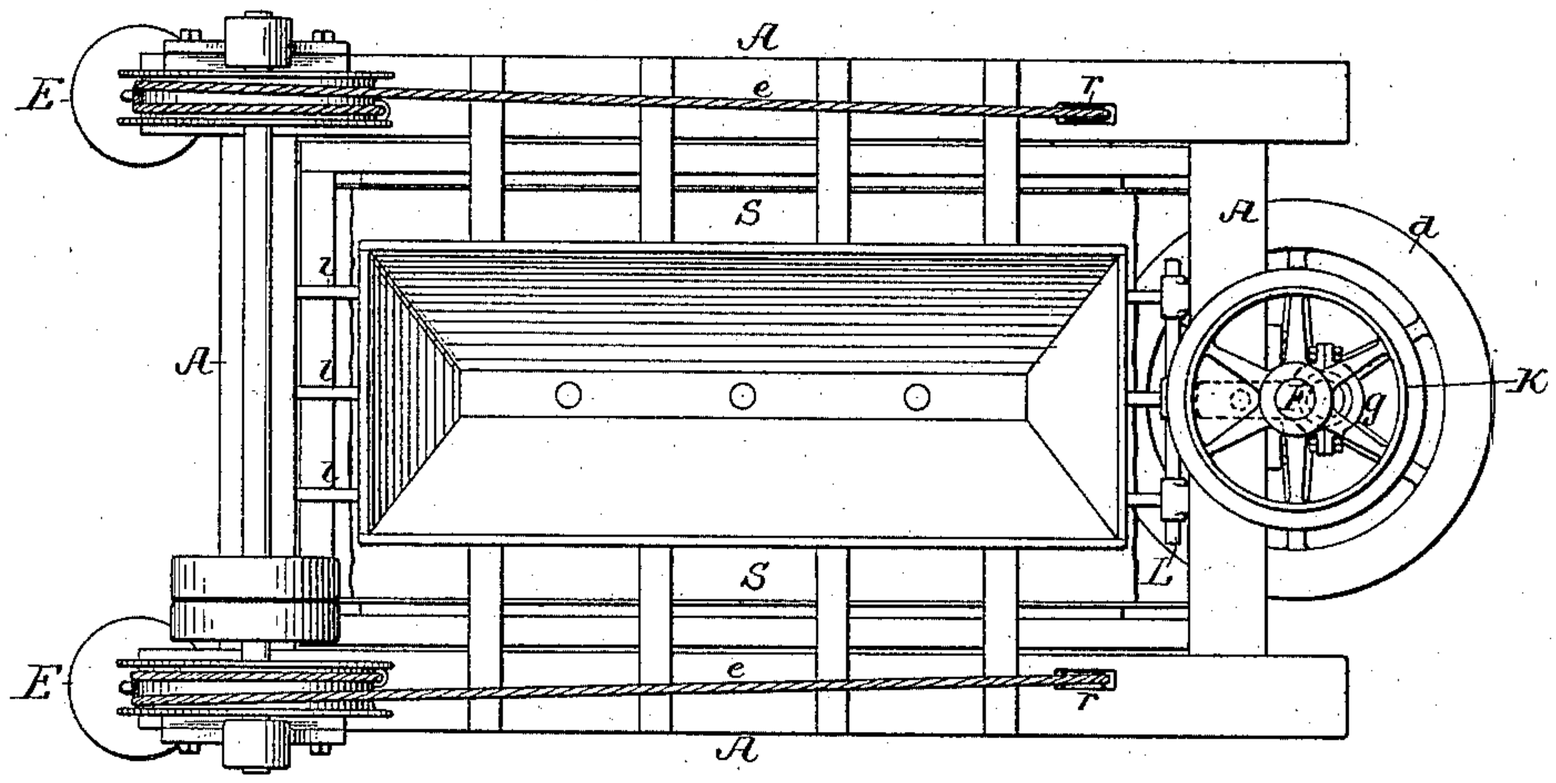


FIG. 2.



Witnesses:
David L. Williams.
Hamilton D. Turner.

Inventor:
James Peckover
by his Attorneys
Howson and Sons

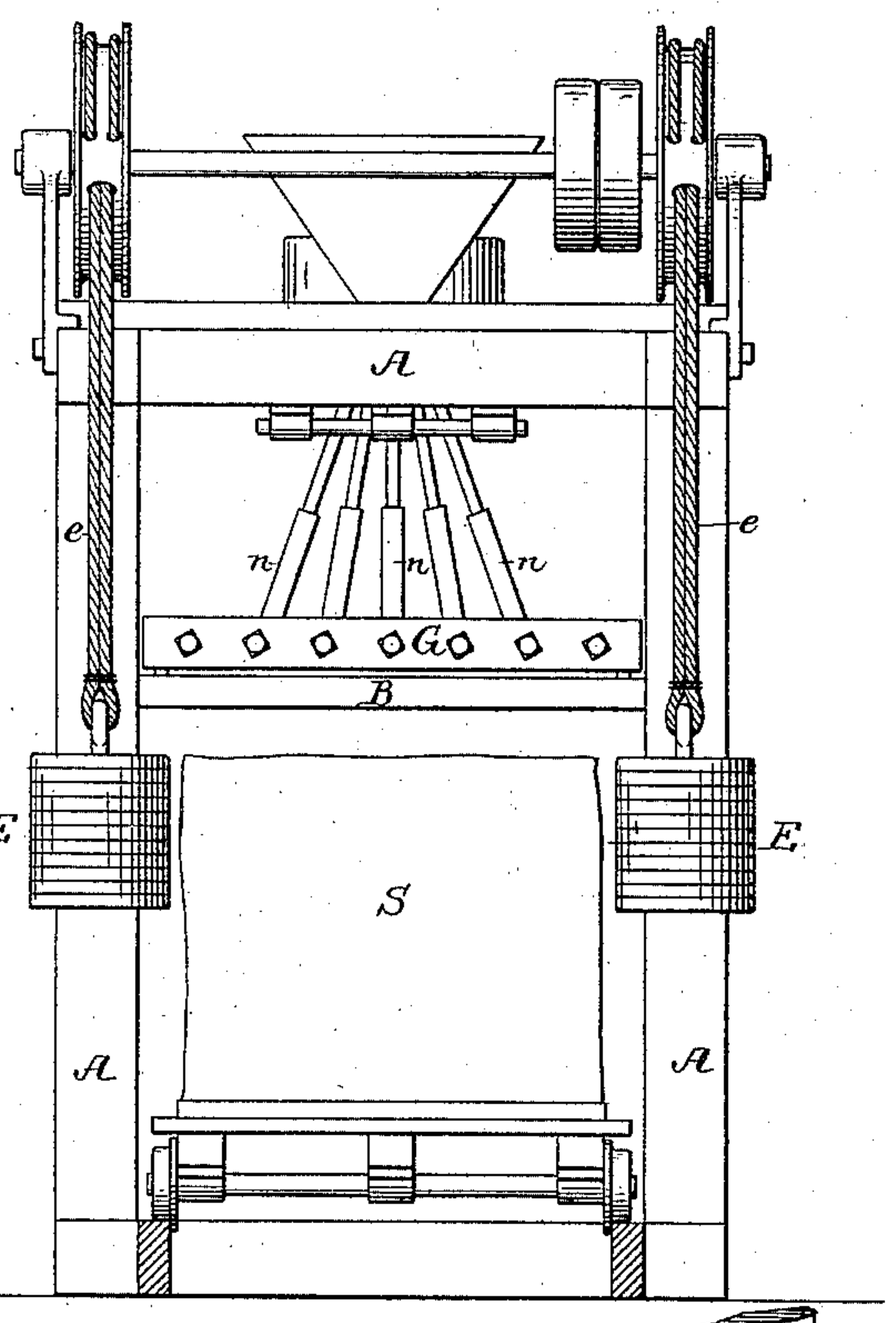
(No Model.) 2 Sheets—Sheet 2.

J. PECKOVER.

STONE SAWING MACHINE.

No. 366,023. Patented July 5, 1887.

FIG. 3.



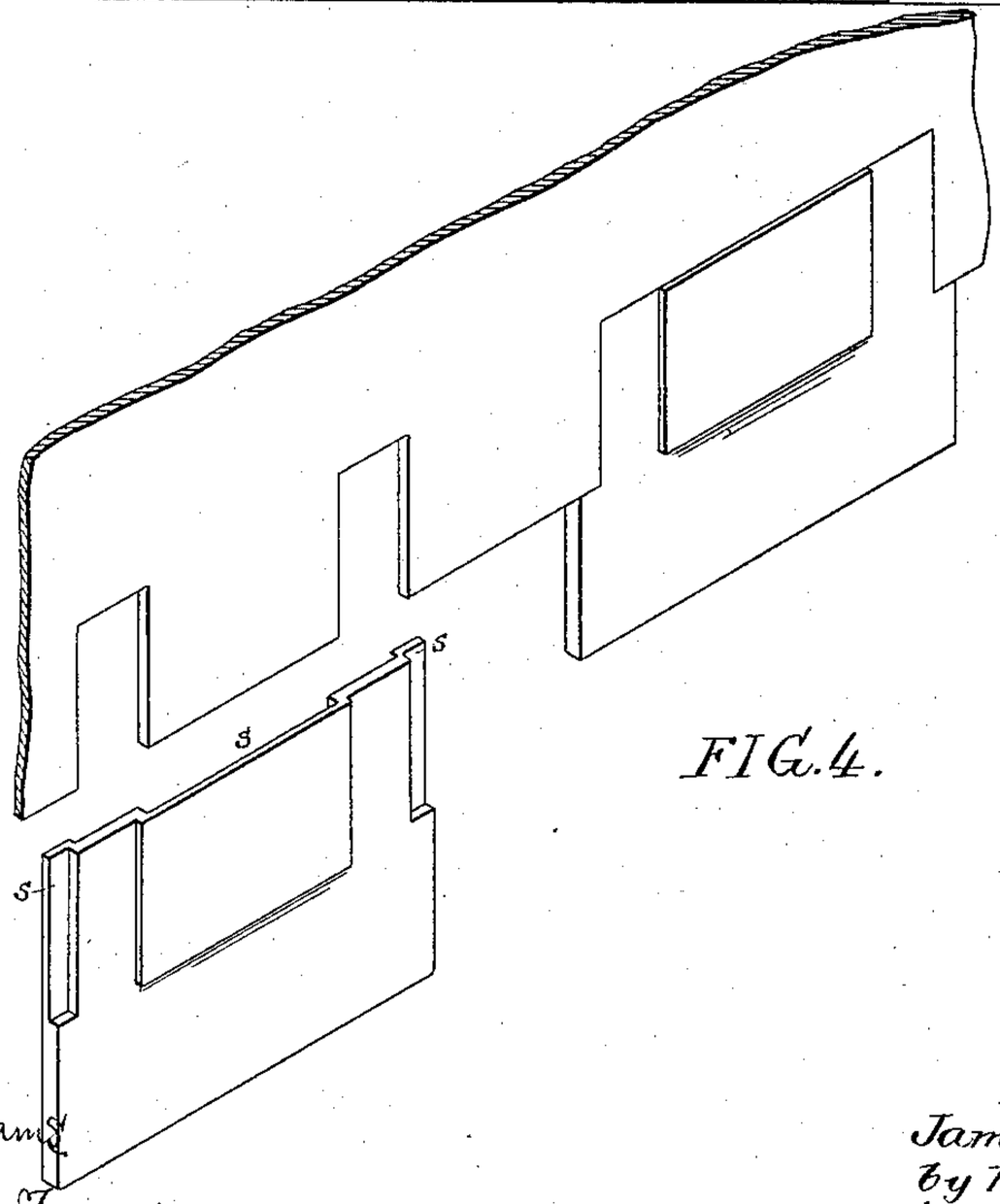


FIG. 4.

Witnesses:
David Williams
Hamilton D. Turner

Inventor
James Peckover
by his Attorneys
Howson and Sons

UNITED STATES PATENT OFFICE.

JAMES PECKOVER, OF PHILADELPHIA, PENNSYLVANIA.

STONE-SAWING MACHINE.

SPECIFICATION forming part of Letters Patent No. 366,023, dated July 5, 1887.

Application filed February 14, 1887. Serial No. 227,500. (No model.)

To all whom it may concern:

Be it known that I, JAMES PECKOVER, a subject of the Queen of Great Britain and Ireland, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Stone-Sawing Machines, of which the following is a specification.

My invention consists of certain improvements in the construction of stone-sawing machines; and the main object of my invention is to simplify the construction of the mechanism for operating the saw-frame.

In the accompanying drawings, Figure 1 is a side view of a stone-sawing machine provided with my improvements. Fig. 2 is a plan view. Fig. 3 is an end view, and Fig. 4 is a perspective view, illustrating the form of saw blade and teeth I prefer to use in connection with my invention.

The main frame A of the machine, together with the saw-frame G and carriage-bed B, on which the saw-frame reciprocates, may be substantially similar in construction to those illustrated and described in the patent granted to me November 15, 1885, No. 330,614. The carriage-bed is suspended by means of cords or chains *e*, to which are connected the counterweights E; but in the present instance, instead of connecting the cords or chains directly to the carriage-bed, I prefer to use the links and swivels *f'*, (illustrated in Fig. 1,) so as to readily adjust the tension of the ropes or chains. The two ropes or chains on each side pass over a flanged pulley, P, as illustrated in Figs. 1 and 2.

As the most convenient way of securing the ropes or chains to the pulleys, so as to insure the uniform elevation of the saw-carriage, I thread the ropes or chains through openings in the rims of the pulleys, as illustrated more clearly in Figs. 1 and 2. These pulleys are arranged in such a position that one of the ropes on each side can pass down vertically from the pulley to its connection with the carriage-bed, while the other rope or chain passes over a small guide-pulley, *r*, near the other end of the machine before passing to its connection with the carriage-bed.

If preferred, the carriage-bed may be dispensed with and the chains or ropes connected by means of the links and swivels directly to the saw-frame, as will be readily understood; but I prefer the use of the carriage-bed, as in that way a linear reciprocating motion is obtained for the saw and a better cutting effect secured than where the ropes or chains are connected directly to the saw-frame, which would then have a pendulum motion.

To impart the reciprocating motion to the saw-frame, I provide at the end of the frame of the machine a vertical crank-shaft, F, with a long crank-wrist, *f*, connected to the saw-frame G by a suitable connecting-rod, *g*. The stub end of the connecting-rod will move longitudinally on the long wrist as the saw-frame descends in cutting the stone S.

A suitable driving-pulley, K, is provided on the crank-shaft, and I prefer, also, to provide the latter with one or more fly-wheels, *d*.

The sand-feeding devices may be similar in construction to those described and illustrated in the Letters Patent granted to me May 11, 1886, No. 341,683, and in connection with these sand-feeding devices I prefer to use a water-supply, consisting of a main transverse pipe, L, and longitudinal distributing-pipes *l*. These distributing-pipes *l* are provided at intervals with outlets having small controlling-cocks *l'*, and in order to get an even distribution of the water I run from the nozzle of each cock a cord or wire, *m*, down to each sand tube or conduit *n*, so that the water can mix with the sand as it is delivered from the conduits to facilitate the passage of the sand to the bottom of the saw-kerf.

The saw-blades I prefer to construct, as illustrated in Fig. 4, with detachable teeth. Each saw-blade is provided with notches, and each tooth is provided with recesses *s s* on opposite sides, so that the projections formed by the notches in the edge of the blade will enter the recesses formed on the opposite sides of the teeth, as shown in the drawings. I do not, however, limit myself to this construction of saw.

I claim as my invention—

1. The combination of the frame of a stone-sawing machine and a vertical crank-shaft having a long crank-wrist, with a saw-frame, and a rod connecting the crank and saw-frame and longitudinally movable on the said wrist, substantially as set forth.

2. The combination of the main frame of a stone-sawing machine and the saw-frame, with

suspending ropes or chains, counter-weights therefor, and pulleys over which the ropes or chains pass and through which they are threaded, substantially as described.

3. The combination of the sand-feeding devices of a stone-sawing machine with water-pipes having a number of outlets, and cords or wires running from said outlets to the sand-feeding conduits, as and for the purpose described.

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

JAMES PECKOVER.

Witnesses:
WILLIAM D. CONNER,
HUBERT HOWSON.