2 Sheets—Sheet 1.

G. J. KAUTZ.

Log-Turner.

No. 204,980. **Patented June 18, 1878.**

Fig. 1.

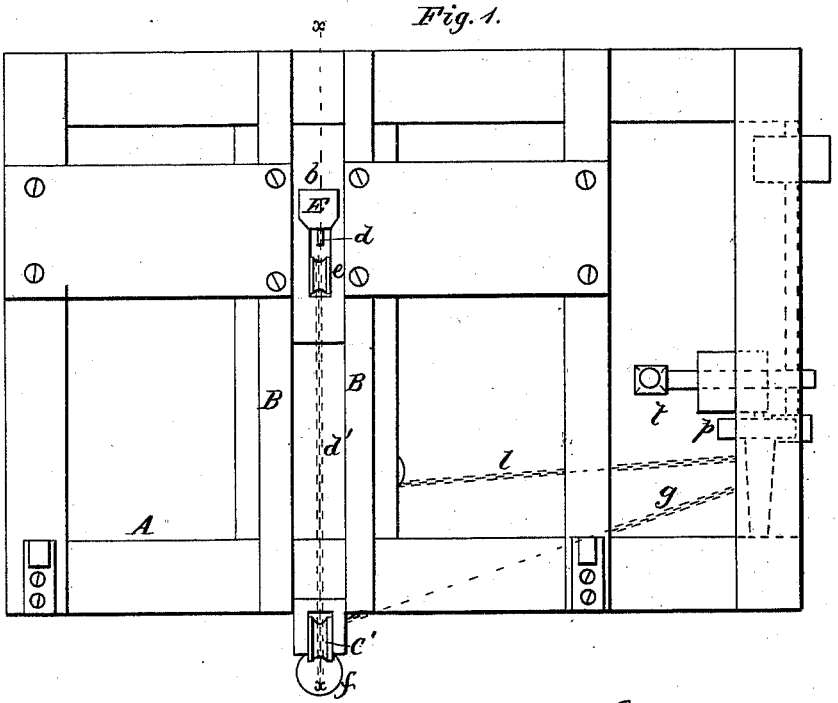
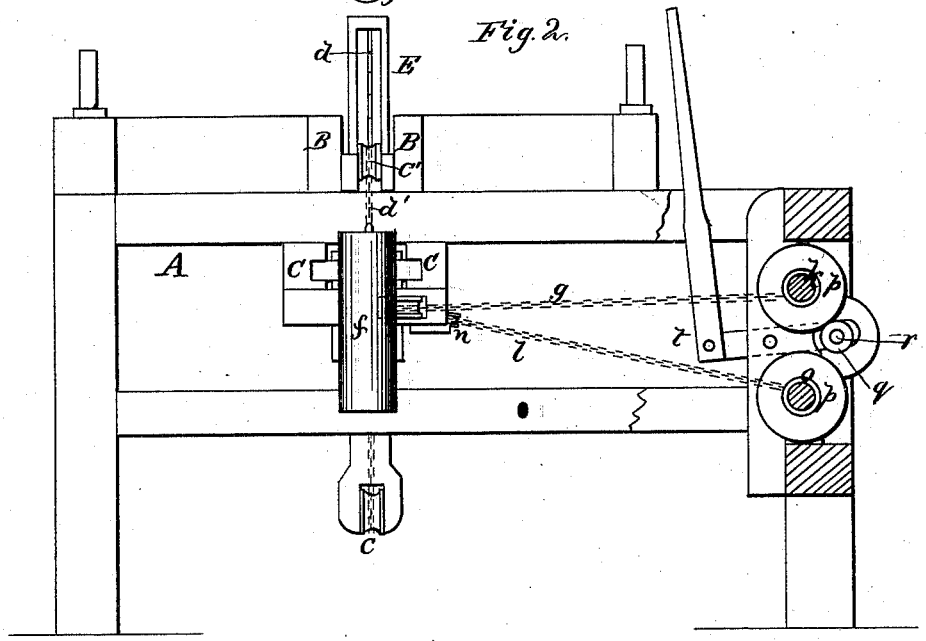


Fig. 2.



WITNESSES:

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C. Sedgwick

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Fig. 3.

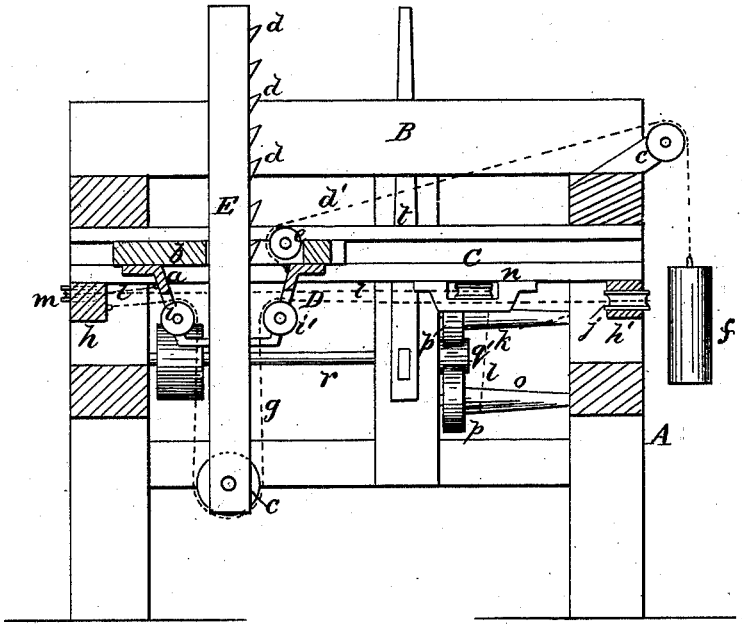


Fig. 4.

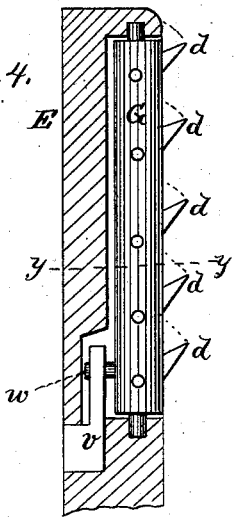
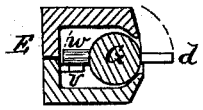


Fig. 5.



WITNESSES:

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UNITED STATES PATENT OFFICE.

GEORGE J. KAUTZ, OF EMPORIUM, PENNSYLVANIA.

IMPROVEMENT IN LOG-TURNERS.

Specification forming part of Letters Patent No. **204,980**, dated June 18, 1878; application filed April 23, 1878.

To all whom it may concern:

Be it known that I, GEORGE J. KAUTZ, of Emporium, in the county of Cameron and State of Pennsylvania, have invented a new and Improved Log Roller and Turner, of which the following is a specification:

Figure 1 is a plan view of my improved log turner and roller. Fig. 2 is a front elevation, partly in section. Fig. 3 is a transverse section taken on line *x x*, Fig. 1. Fig. 4 is a detail view, partly in section. Fig. 5 is a transverse section taken on line *y y* in Fig. 4.

The object of my invention is to provide a device for rolling and turning logs in saw-mills.

Referring to the drawing, A is a portion of the frame-work of the saw-mill, which supports the timbers B and the ways C, which are placed below and parallel with the timbers B.

To the ways C a sliding carriage, D, is fitted. This carriage consists of two portions, *a b*. The part *a* is fitted to the ways, and the part *b* moves in a slot formed in the part *a*, and both parts are apertured to receive the vertically-sliding bar E, which has in its lower end a pulley, *c*, and carries the teeth *d*, by which the surface of the log is engaged. A pulley, *c'*, is journaled in the upper part *b* of the carriage D, and a chain, *d'*, is fastened to the lower part *a* and runs over a pulley, *e*, in the frame-work A, and is attached to a weight, *f*, which draws the part *b* forward on the part *a*, and presses the bar E into engagement with the log.

The bar E is operated by means of a chain, *g*, which is secured to the timber *h*, that supports one end of the ways C, and extends across the frame A, running over the pulley *i*, journaled in the lower portion of the carriage D, and under the pulley *c* in the lower end of the bar E, and over the pulley *i*, journaled in the carriage on the opposite side of the bar E; thence around a pulley, *j*, which is journaled in the timber *h'* of the frame A; then forward to the windlass *k*, at the end of the frame A.

The windlass *o* is immediately below the windlass *k*, and both are provided with friction-wheels *p*, which may be engaged one at a time by the friction-wheel *q* on the shaft *r*. The shaft *r* is provided with a driving-pulley, *s*, which takes power through a belt from one of the shafts of the mill. One end of the shaft *r* is journaled in the shorter arm of a right-angled lever, *t*, and the shaft is moved by means of the said lever, so as to bring the friction-pulley *q* into engagement with either of the friction-wheels *p*, and thus operate either of the windlasses.

The teeth *d* are pivoted in a roller, G, that is journaled in the vertically-sliding bar E, and said teeth are capable of being folded upward in the roller as the bar is drawn down, but are carried outward against the shoulder at the lower side of their sockets in the roller as they are brought into engagement with the log by the upward movement of the bar E.

The roller G is capable of turning in the bar E in the direction in which the log moves on the saw-mill carriage, and is returned to its working position by a spring, *v*, in the bar E, which engages the pin *w*, that projects from the roller G. The object of this arrangement is to permit of moving the log forward before moving back the bar E.

The operation of my improved log-turner is as follows: The log being delivered to the frame A, the bar E is raised by throwing the friction-wheel *q* into engagement with the wheel *p* of the windlass *k*. The chain *g* is by this means wound upon the windlass, and the bar E is raised.

The log is rolled by the engagement of the teeth *d* with its outer surface, and the bar E is constantly drawn forward into engagement with the log by the weight *f*.

When it is desired to return the bar E to its starting-point, the carriage D is drawn back by throwing the friction-wheel *q* into engagement with the wheel *p* of the windlass *o*, which draws the chain *l* and returns the carriage.

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

1. The combination, with a carriage formed of the two parts *a b*, operating as described, of the bar E, provided with pivoted teeth *d*, as and for the purpose specified.

2. The spring-actuated roller G, carrying the pivoted teeth *d*, in combination with the bar E, as herein shown and described.

GEORGE J. KAUTZ.

Witnesses:

HENRY EDGCOMB,

GEO. A. WALKER.