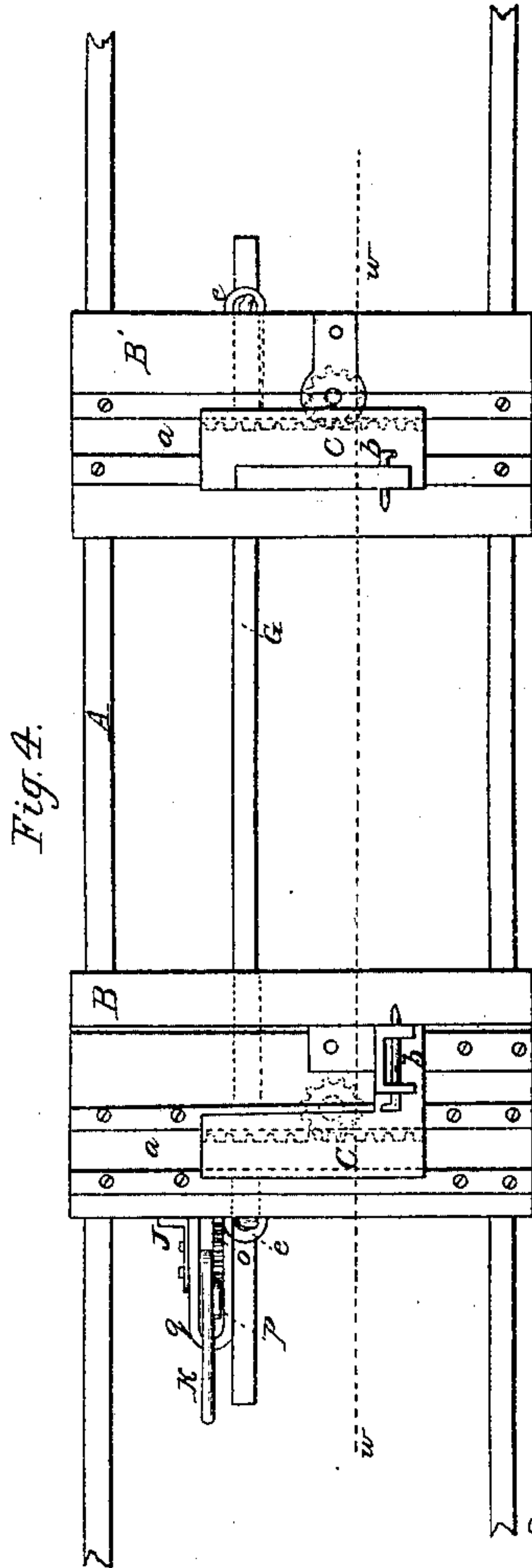
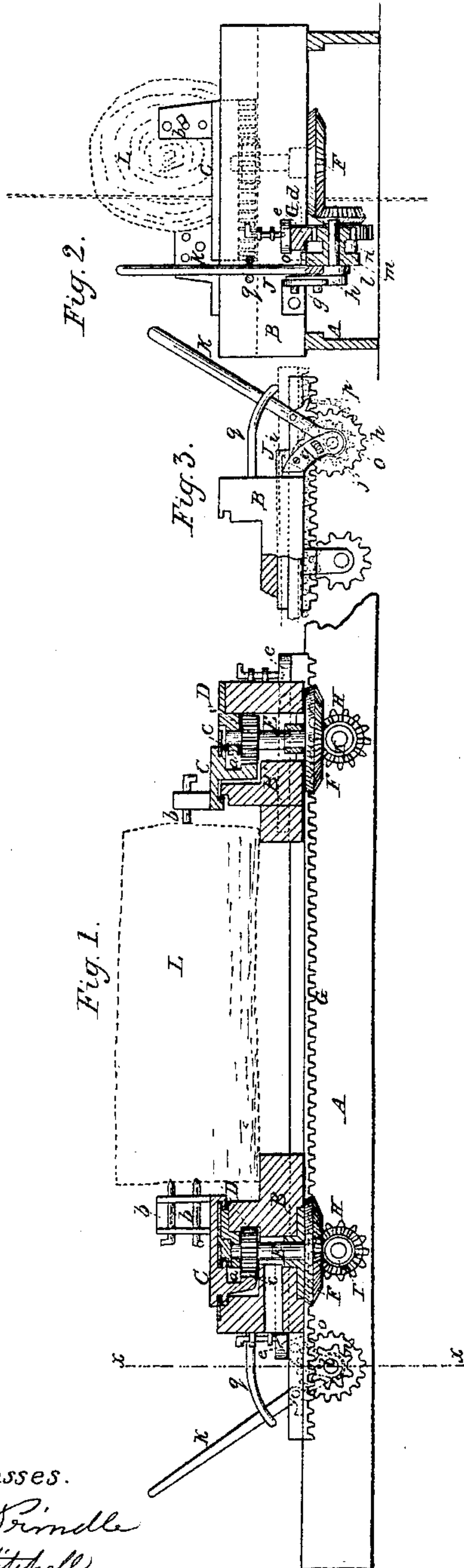


J. Kurtzman,
Saw-Mill Head-Block.

No 24,743.

Patented July 12, 1859.



Witnesses.
M B Brindle
W Mitchell

Inventor.
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UNITED STATES PATENT OFFICE.

J. KURTZEMAN, OF LANCASTER, OHIO.

HEAD-BLOCK FOR SAWMILLS.

Specification of Letters Patent No. 24,743, dated July 12, 1859.

To all whom it may concern:

Be it known that I, JOSEPH KURTZEMAN, of Lancaster, in the county of Fairfield and State of Ohio, have invented a new and useful Improvement in Head-Blocks for Sawmills; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1, is a longitudinal vertical section of my invention, taken in the line *w, w*, of Fig. 4. Fig. 2, is a transverse vertical section of the same, taken in the line *x, x*, of Fig. 1. Fig. 3, is a detached side view of a portion of the same. Fig. 4, is a plan or top view of the whole of the same.

Similar letters of reference denote like parts in all the figures.

This invention consists in a novel arrangement of gearing for actuating the slides to which the dogs are attached, as hereinafter fully shown and described, whereby both blocks may, by actuating a single lever, be moved or adjusted simultaneously and the log set bodily to the saw and parallelly with its cutting plane, when "stuff" of equal thickness is to be sawed, or set obliquely with the cutting plane of the saw when "stuff" of taper form is to be sawed.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A, represents a saw-mill carriage which may be constructed in the usual way; and B, B', are two blocks secured transversely on the carriage one on each end. In each block B, B', a groove or recess *a*, is made longitudinally, and in each groove or recess *a*, a slide C, is fitted and allowed to move freely back and forth. In the upper parts of the slides C, dogs *b, b*, are placed, as shown clearly in Figs. 1 and 4, and to the lower parts of the slides C, C, are attached racks *c, c*, one to each slide, said racks being within the grooves *a*. Into the rack *c*, of each slide, a pinion D gears; and these pinions are attached to vertical arbors E, E, that pass into the blocks B, B', and are allowed to rotate freely therein. To the lower end of each arbor E, a bevel wheel F is attached.

G is a rack which is fitted longitudinally in the under side of the carriage A. This rack is fitted in grooves *d*, in the under side

of the blocks B, B', and when desired is kept in gear by means of wedges *e, e*, with pinions H, the bearings of which are secured to the under sides of the blocks B, B'.

To one side of each pinion H, a bevel pinion I, is attached, and these pinions gear into the bevel wheels F, which are attached to the lower ends of the arbors E, E.

To the block B, a bracket J, is attached; this bracket is formed of two parts *g, h*; the parts *g*, being permanently attached to the block B, and the part *h* secured to the part *g*, by a pivot *i*, and a set screw *j*, which screw passes through a curved slot *k*, in the part *g*, and into the part *h*; see more particularly Fig. 3.

To the lower end of the part *h*, of the bracket J, a horizontal arm *l*, is attached, and on this arm a collar *m*, is placed loosely; said collar having a pinion *n*, attached to it, which pinion gears into the rack G. A ratchet *o*, also, is placed on the collar *m*, with which when necessary, a pawl *p*, is made to engage by means of a lever K, the fulcrum of which is the collar *m*. To the block B a curved guide *q*, is attached, in which guide the lever K, is fitted.

The operation is as follows:—The log L, shown in red is placed on the carriage A, one end resting on each block B, B', as shown clearly in Fig. 1. The carriage A is operated, that is to say, moved toward the saw and gigger back from it in the usual or in any proper way. In order to set the log L, to the saw, the lever K, is braced down and the pawl *p* engages with the ratchet O, and the pinion *n*, moves the rack G; and this rack, through the medium of the gearing H, I, F, D, and the other racks *c, c*, on the slides C, moves said slides simultaneously and the log will be set to the saw parallel with its cutting plane and so that the saw may cut boards or "stuff" of greater or less thickness as may be desired; the latter result being obtained by moving the lever K, a greater or less distance. The wedges *e, e*, keep the rack G, in gear with the pinions I, I, said wedges forming upper bearings for the rack. By the employment or use of these wedges, boards or stuff may be sawed from the log in taper form; for, when it is desired to saw "stuff" in such form the wedge *e*, above the pinion *n*, is withdrawn, and the adjustable part *h*, of the bracket J, is moved outward and upward, so that the pinion *n*,

will still gear into the rack G, and the latter be raised above the pinion I, of block B, as shown in red in Fig. 3. The rack G, therefore, when actuated, will only move the
5 slide C, of the block B', and the log will be presented obliquely to the cutting plane of the saw and the latter will consequently cut the "stuff" in taper form. The wedges *e, e*,
10 may be readily adjusted in and removed from the grooves *d, d*, in the blocks, and the rack G, may, by adjusting the wedges *e, e*, be made to actuate the slide C, of either block E, or E', separately.

Having described my invention, what I

claim as new, and desire to secure by Letters Patent, is: 15

The sliding rack bar placed longitudinally in the carriage A, and adjusted therein by the wedges *e, e*, in connection with the gearing H, I, F, whereby the two slides C, C, 20 may, by a suitable adjustment of the wedges, be actuated both simultaneously and separately as may be desired.

J. KURTZEMAN.

Witnesses:

M. B. PRINDLE,
WM. MITCHELL.