

G. ZSCHECH.
Head-Blocks for Saw-Mills.

No. 145,712.

Patented Dec. 16, 1873.

Fig. 1

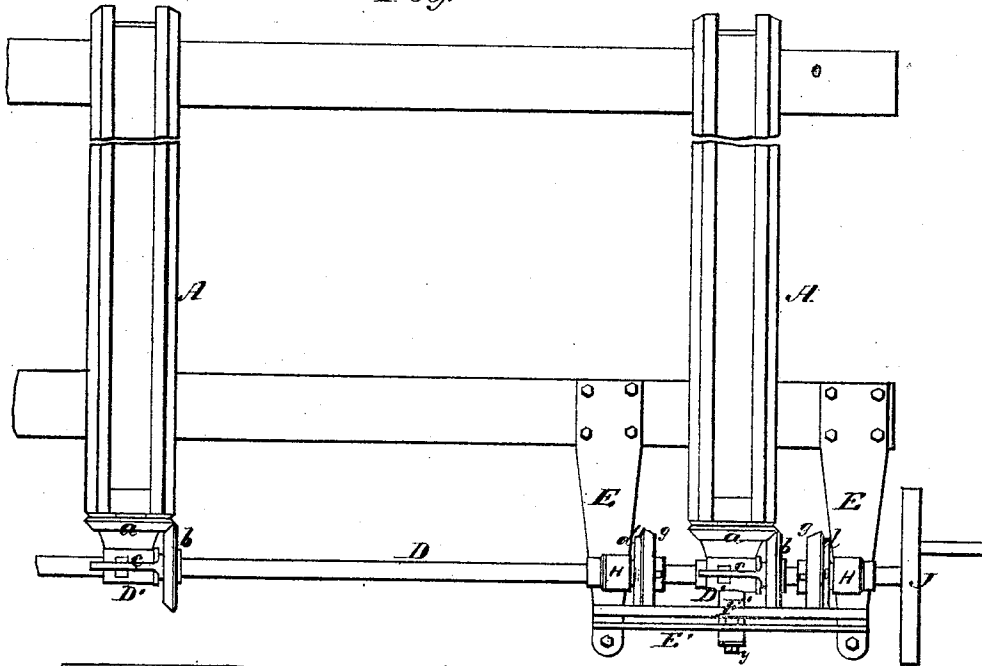


Fig. 7

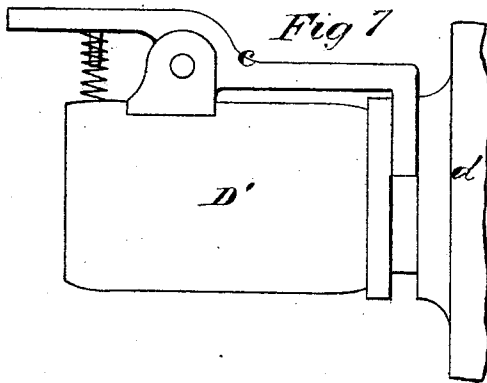
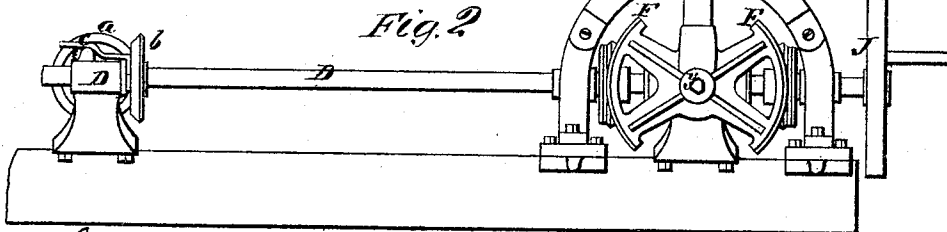


Fig. 2



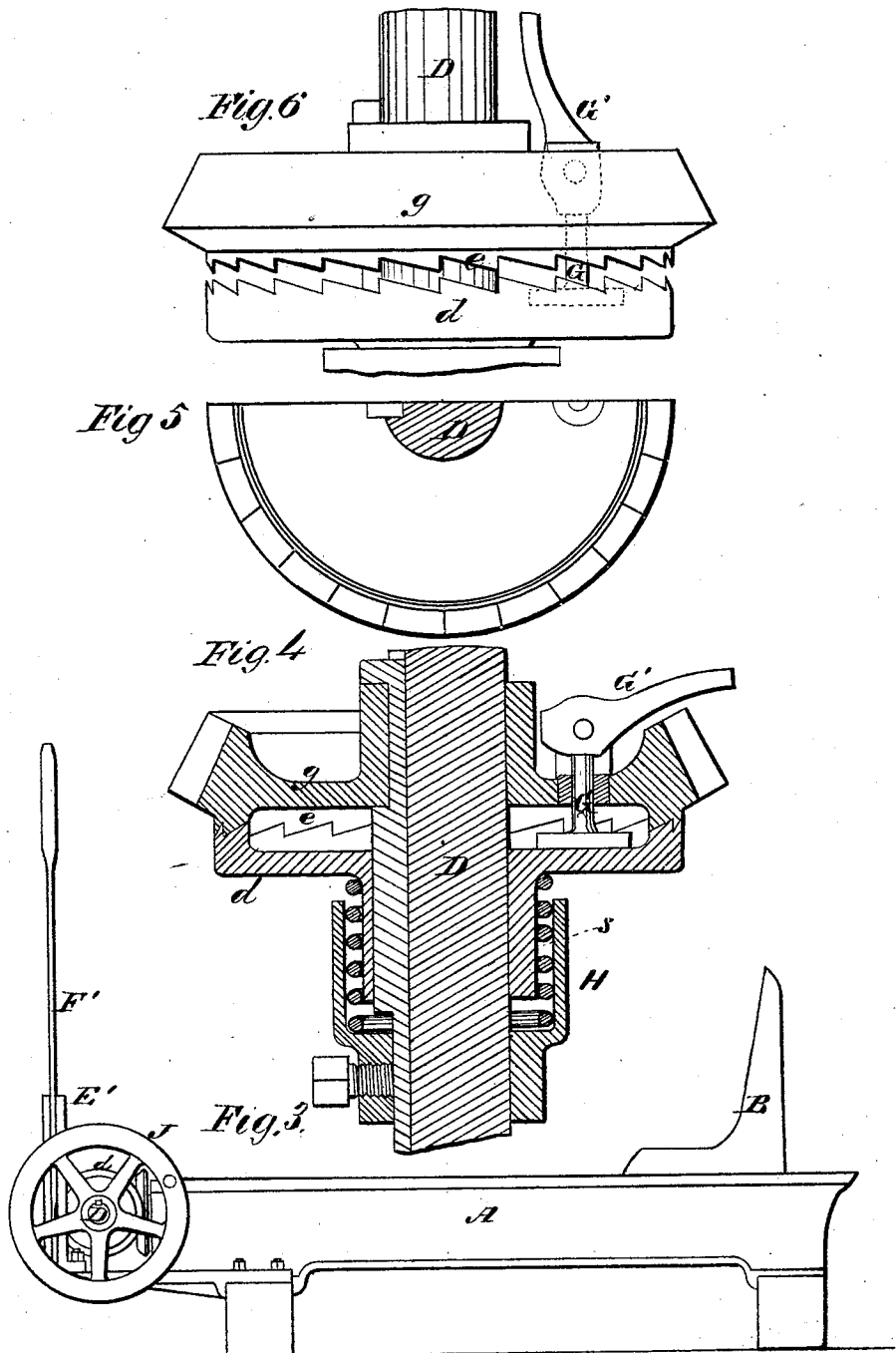
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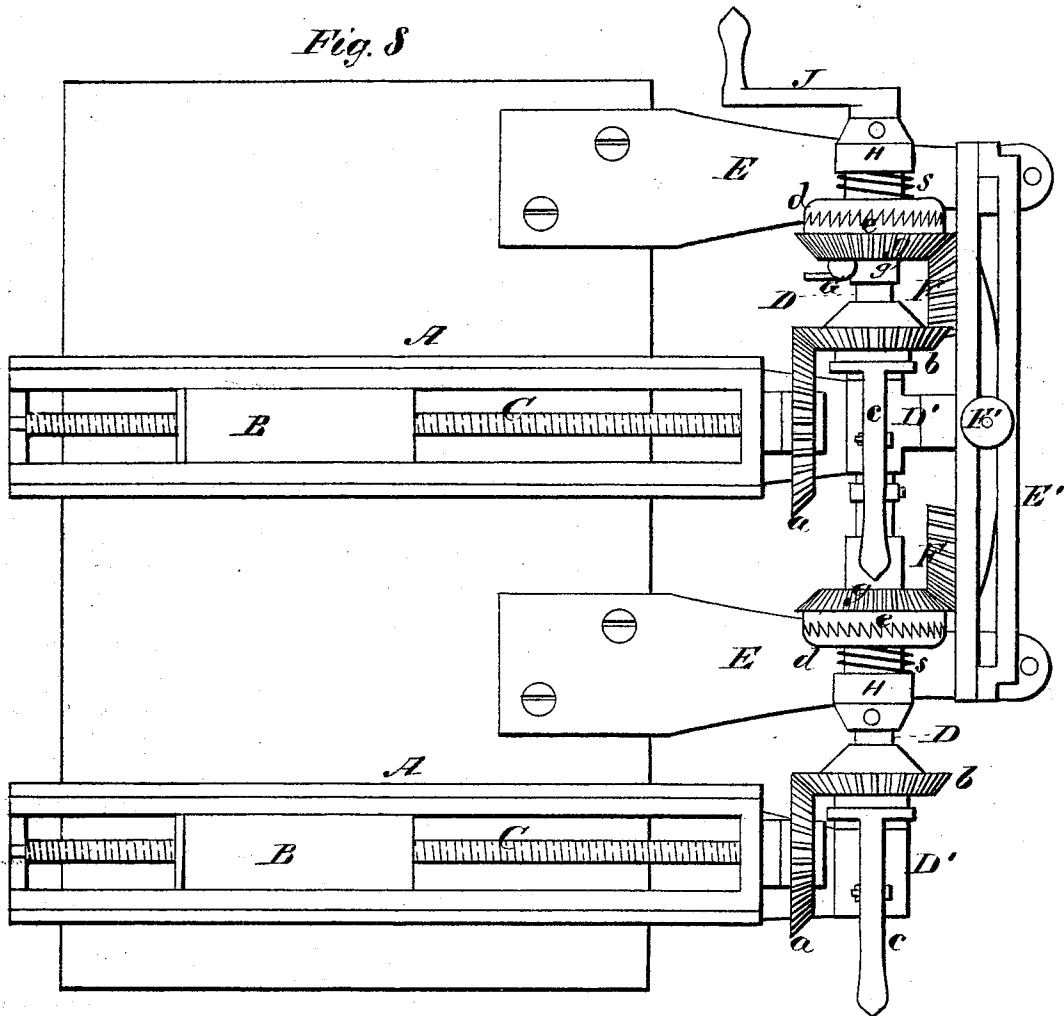
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Fig. 8



Witnesses.
E. H. Bates.
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UNITED STATES PATENT OFFICE.

GUSTAVUS ZSCHECH, OF INDIANAPOLIS, INDIANA.

IMPROVEMENT IN HEAD-BLOCKS FOR SAW-MILLS.

Specification forming part of Letters Patent No. **145,712**, dated December 16, 1873; application filed November 8, 1873.

To all whom it may concern:

Be it known that I, GUSTAVUS ZSCHECH, of Indianapolis, in the county of Marion and State of Indiana, have invented a new and valuable Improvement in Head-Blocks for Saw-Mills; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a plan view of my head-block. Figs. 2 and 3 are side views of the same. Fig. 4 is a sectional view of the same. Figs. 5, 6, and 7 are detail views of the same. Fig. 8 is a top-plan view of the same.

This invention has relation to head-blocks for saw-mills; and it consists in a certain novel construction of parts, whereby the knees can be adjusted singly or together, and moved either by means of a vibrating lever or by means of a crank-handle, as will be hereinafter explained.

The following is a description of my improvement:

In the annexed drawings, A A represent two head-blocks, which will be mounted on a log-carriage in the usual manner, and which have knees B B applied to them, and moved by means of screws C C. On these screws bevel spur-wheels *a a* are keyed, which engage with bevel-wheels *b b* on a horizontal shaft, D. The shaft D is supported by bearings D' D' extending out from the ends of the head-blocks, and on one of its ends a crank-handle, J, is applied, by turning which the knees B B can be rapidly moved back and forth when the wheels *a b* are in gear. The wheels *b b* are applied on their shaft by means of a feather and groove, so that they always turn with it, but may be moved endwise on it and disengaged from the wheels *a a*. By means of yoked levers *c c*, which are acted on by springs, (shown in Fig. 7,) the wheels *b b* are held in gear with the wheels *a a*. E E represent two bearings, on which are secured a vertical semicircular guide, E', in which a lever, F', is applied. This lever F' has its bearings on an axis, *y*, and is constructed with toothed segments F F, which are concentric to said axis, and which engage with beveled spur-

wheels *g g* on the shaft D. The spur-wheels *g g* are constructed with ratchet-teeth *e* on their backs, which engage with ratchet-teeth on the faces of wheels *d d* on shaft D. The wheels *g g* are applied on their shaft by means of double-headed keys *j j*, (shown in Fig. 4,) which allow these wheels to turn freely on their shaft, but prevent them receiving endwise movement. The ratchet-wheels *d d* are prevented from turning on their shaft by means of the keys *j j*, but are allowed to receive endwise movement. The tubular hubs of the ratchet-wheels *d d* are received into cups H H, and surrounded by springs *s s*, which act to keep these wheels in gear with the wheels *g*. G G represent pins, which pass through the wheels *g g*, and bear against the inner faces of the wheels *d d*. These pins G G are acted on by means of finger-keys G' G', which press the wheels *d d* away from wheels *g g*, and thus disengage the ratchet-teeth of these wheels.

It will be seen, from the above description, that when the wheels *g g d d* are disengaged the knees B B can be moved rapidly by turning the crank J; also, that either one of the knees can be moved independently of the other. It will also be seen that when the wheels *g g d d* are in gear the knees can be moved by vibrating the lever F'.

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

1. The wheels *d d g g*, applied on the shaft D by means of double-headed keys *j j*, the wheels *d d* being acted on by springs *s s*, and the wheels *g g* engaging with segments F F on lever F', in combination with saw-mill head-blocks, substantially as described.

2. The pins G G and their finger-keys G' G' in combination with the wheels *d d g g* and the springs *s s*, substantially as and for the purposes described.

3. The combination and arrangement of the wheels *a b*, yoked levers *c*, wheels *d d g g*, and segments F F on lever F', and crank J on shaft D, as described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

GUSTAVUS ZSCHECH.

Witnesses:

CHARLES COULON,
ADOLPH HARDER.