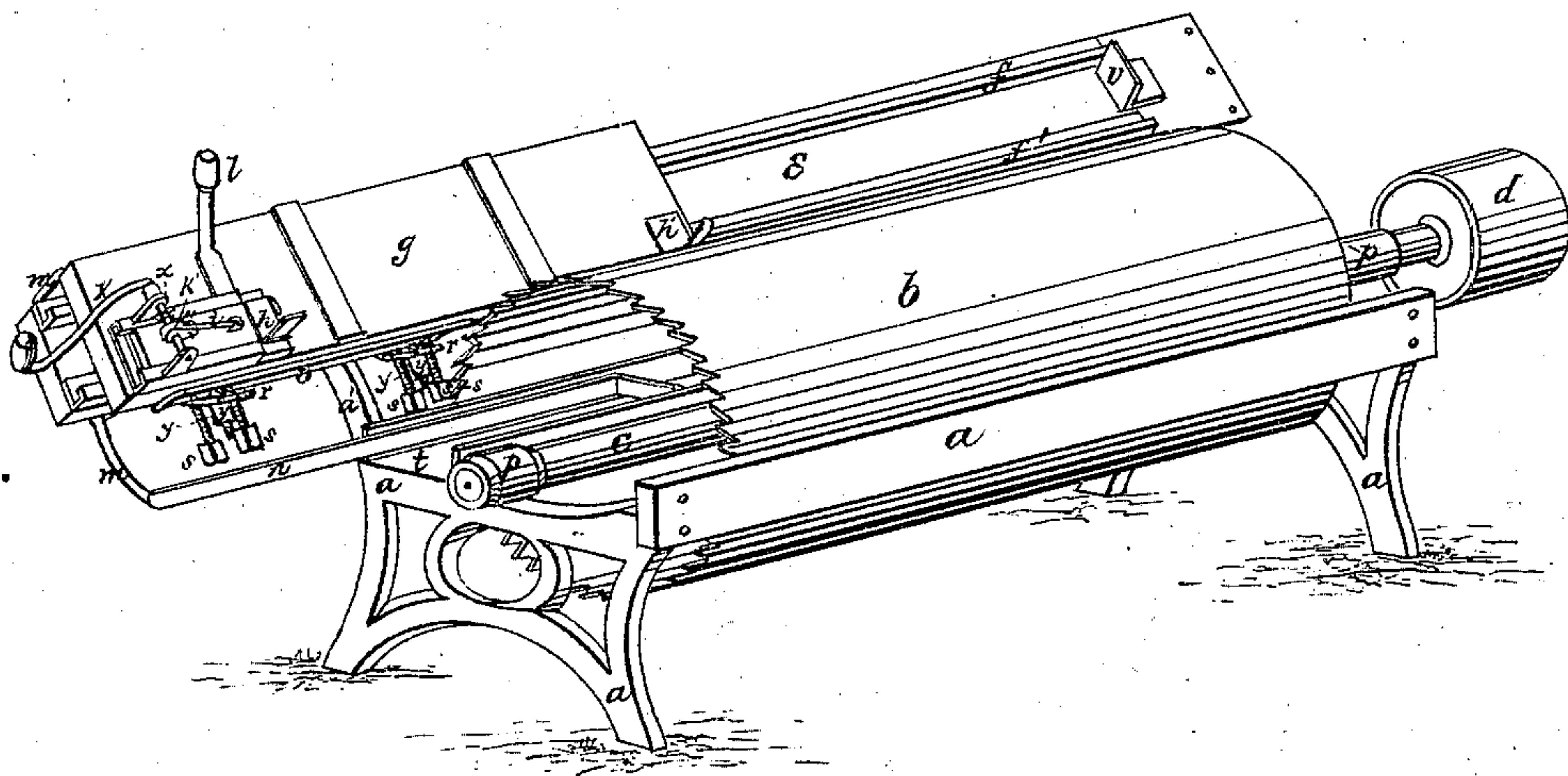


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Improvement in Stave-Sawing Machines.

No. 130,802.

Patented Aug. 27, 1872.



Witnesses.

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UNITED STATES PATENT OFFICE.

PETER GERLACH, ANDREW KNIPPER, AND JOHN GERLACH, OF CLEVELAND, OHIO.

IMPROVEMENT IN STAVE-SAWING MACHINES.

Specification forming part of Letters Patent No. 130,802, dated August 27, 1872.

Specification describing certain Improvements in Stave-Sawing Machines, invented by PETER GERLACH, JOHN GERLACH, and ANDREW KNIPPER, of the city of Cleveland, county of Cuyahoga and State of Ohio.

This invention relates to that class of stave-sawing machines in which the wooden block is clamped to the carriage after having been properly gaged and moved upon a cylindrical saw; and consists in the peculiar construction and arrangement of the carriage-bed, carriage, and dogging devices, and the adjustable gage.

The drawing is a perspective view of a machine constructed with our improvements.

a is the saw-frame, and *b* the cylindrical saw attached to an arbor, *c*, working in journals *p* in the frame, and carrying a band-wheel, *d*. To the frame *a* a trough, *t*, extending within the cylinder, is attached to catch the staves as they are sawn from the block. From the frame, upon one side of the saw, arms *a'* are extended to which the carriage-bed *e* is secured. Upon the carriage-bed parallel rails *f f'*, of the form shown, are arranged upon which the carriage *g* travels. The carriage is provided with two series of rollers to travel upon rail *f*, one of which is arranged parallel to and the other vertically with the plane of the carriage. Rollers are also provided upon the lower face of the flange of rail *f'*, upon which the lower side of the carriage travels. Plates depending from the under side of the carriage, and, acting upon the flanges of the rails, prevent it from being forced from the track. The carriage is operated by means of a handle, *l*. A bent arm, *m*, extends from the upper side of the carriage, to which it is rigidly attached, around under the carriage-bed, and connects with a rake, *n*, which advances and recedes in the trough *t* with the carriage, and withdraws the stave. Dogging devices *h h'* are attached to the carriage to securely hold the block from which the stave is sawn. *h'* is a fixed upright serrated plate. *h* is a

sliding plate which moves in a slide frame attached to the carriage. It has a knife-edge, and is provided with an upright plate with a knife-edge. This plate *h* is actuated by a powerful lever, consisting of the handle *k*, shaft *x*, eccentric *k'*, and connecting-link *i*, and when the block is placed between the plates *h h'*, and the leverage applied by forcing down handle *k*, it will be most securely held. Arms *r r*, extending out from the carriage-bed, support the gage *o*, which is provided with screws *y y* passing through perforations in the arms, and kept in proper place by nuts. Screws *s s s s*, arranged in threaded perforations in said arms, bear against the gage *o*, and serve, with the aid of screws *y y*, to perfectly adjust the same in both a lateral and a longitudinal direction.

The carriage-bed and carriage are arranged at one side of the saw, instead of directly over the same, and the block strikes the saw in a plane whose angle is about forty-five degrees with the plane of the saw's horizontal diameter.

The advantages of this arrangement over those machines in which the carriage is located directly over the saw are, the greater facility and convenience in the handling and adjusting of the wooden block, simplicity in the construction of the parts required, and accessibility of the saw for sharpening.

We claim as our invention—

The combination of carriage *g*, carriage-bed *e* provided with rails *f f'*, and adjustable gage *o* with the cylindrical saw *b*, when said carriage and bed are arranged at one side of the saw, and constructed substantially as described.

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