

to construct and difficult if not dangerous to operate.

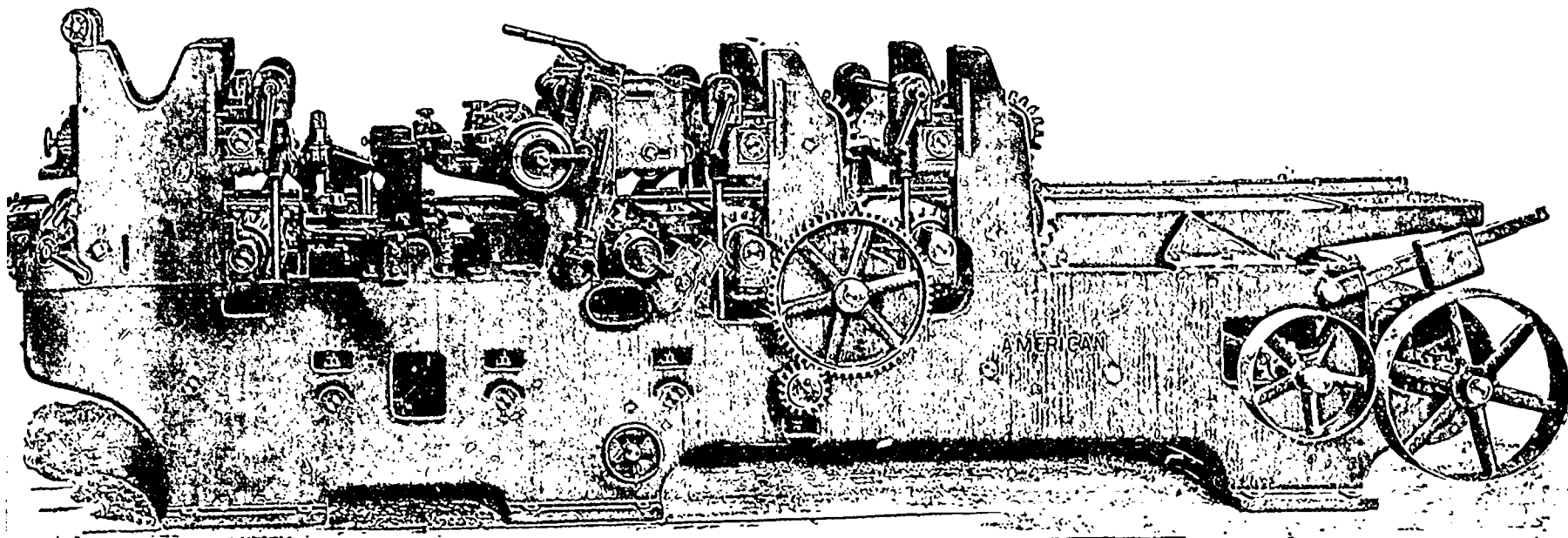
A notion prevails widely that the soaking of wood by rafting or floating injures its strength but reduces its tendency to decay and shrinkage. The same is said of wood boiled or steamed preparatory to bending. Careful tests show that these claims are merely notions without

patented September 18th, 1900, and October 30th, 1900, and attention is invited to some of its most important points:

1. The great saving in kerf by using a thin blade, an important item when cutting fine lumber.
2. Solid lower wheel, increasing speed, lessening the circulation of dust, and preventing the upper wheel from overrunning it. Upper wheel having its spokes placed in staggering position, giving it increased solidity.

The feed consists of six large rolls, geared at both ends and fitted with parallel lift. The rolls are either solid or divided as ordered.

The top and bottom cylinders are of crucible steel, four-sided, lipped and slotted and belted at both ends. As they are alike in detail, they are interchangeable. The journals are long and large in diameter. The boxes are yoked both in front and behind the cut, insuring perfect alignment. They are easily adjusted and rigidly clamped. The pressure is perfect, and the parts are so arranged that they permit of the knives taking in an



HOYT'S NEW FIVE HEADED PLANER AND MATCHER.

any substantial foundation in fact.—Southern Lumberman.

#### NO. 57 BAND SAW MILL.

The most pronounced success in the development of machinery for the lumber manufacturer is the band saw

3. Improved sensitive straining device, maintaining an always even tension on saw blade, and materially prolonging its life.

4. Patent variable friction feed, simple in construction, powerful and effective in operation. Furnished for steam or rack and pinion.

5. Automatic off-set to carriage, headblocks fitted with Knight's patent dogs and having automatic receding device, double-acting set works, rapid return to carriage, etc., are a few of its improved features.

Those interested will be furnished with terms, full descriptions and any particulars, including copies of testimonial letters received from users, by the makers, J. A. Fay & Egan Co., Cincinnati, O. They will also send free their new illustrated catalogue of wood-working machinery to those writing for it, mentioning this paper.

#### HOYT'S NEW FIVE HEADED PLANER AND MATCHER.

The accompanying engraving illustrates a late improved five-headed planer and matcher of the New Series type, built by the Hoyt & Brother Company Branch of the American Wood Working Machinery Company, at Aurora, Ill. The main feature of this machine is that it has two lower cylinders. The first one is placed in front of the top head, making the roughing cut, while the second lower cylinder is placed in the rear of the machine, for producing an extra fine finish when running flooring face downward. It is built in various sizes, working from 9 to 30 inches in width, and 8 to 12 inches thick. It will match from two inches to the full width of machine and dress as thin as  $\frac{3}{8}$  inch.

exceptionally heavy cut. The pressure bar on under head is carefully designed, and while simple, yet is positive.

The lower cylinder is placed in front of the upper cylinder. It can be quickly and easily drawn out from the side of the machine, and is adjusted not only from the side, but also from the feeding-in end of the machine while it is in motion, to bring the cut of the knife on a line with the rear pressure bar. The front lower cylinder bar, together with the lower feed roll, is so arranged that by operating a lever at the front of the machine, the cut of the under head may be changed as desired without altering the finished thickness of the material or disturbing the cutter head, and any amount of stock can be removed up to  $\frac{3}{4}$  inch.

The gearing is strong, positive and powerful. All gears of equal size are interchangeable and can be reversed, the hubs being alike on both sides. All gears and pinions are mounted on shafts which run in babbitted boxes.

The matcher spindles have long bearings and are large in diameter. They are adjusted independently and can be clamped perfectly rigid.

The top chip breaker can be adjusted to within  $\frac{1}{8}$  inch of the cutting circle, and remains in this relation even when the cylinder is taking any cut desired up to  $\frac{3}{4}$  inch.

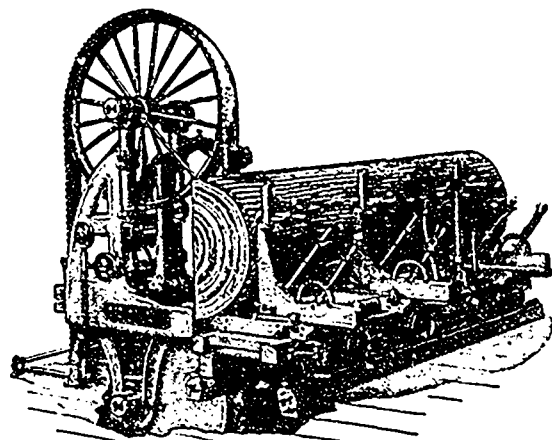
There are four rates of feed, 40, 50, 60 and 80 feet per minute, or the manufacturers can furnish any rate desired up to 120 feet per minute.

For full detailed information and prices, we would refer our readers to the American Wood Working Machinery Company, 136 Liberty street, New York, or the Fairbanks Company, Vancouver, B.C.

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now using my gauges and instructions. I give the short infallible method. Failure is out of the question. Your first saw a perfect saw. Sent prepaid on trial to honest men. Put your saw to my gauge and if it don't run perfectly I will pay freight both ways and hammer it free.

Send for Canada references. J. H. MINER, Lumberton, Miss



NEW BAND MILL.

mill. Its superiority over the circular mill is everywhere admitted. It required long and continued effort to bring the one here shown to its present state of mechanical perfection; with the result that on its introduction on the market it at once met with favor. It is one of the newest and most improved pony band mills for fine sawing in hardwood ever built. It was

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