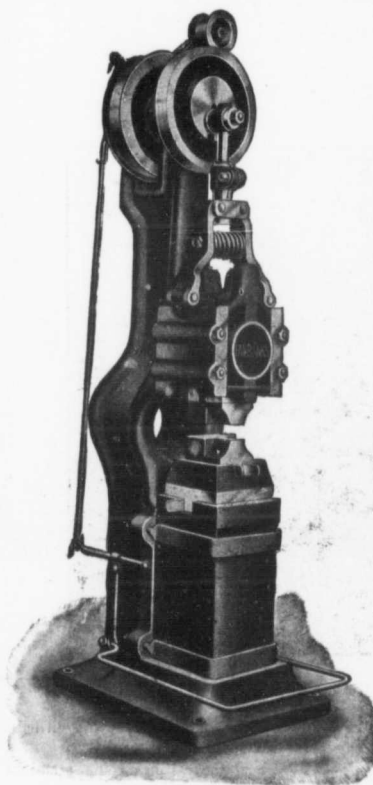


NEW TOOLS AND SHOP EQUIPMENT

Only Descriptions of New and Interesting Machines, Tools or Appliances Can Be Published. No Mere Write-Up Can Be Used.

A New Power Hammer

A new power hammer is being made by the Canadian Fairbanks Co., at their new plant at Sherbrooke, Que., the features of which can be seen in the accompanying



A New Power Hammer.

illustration. The features claimed for this hammer are: simplicity of construction; easy adjustment; economy of space; and great range of work.

No hammer made at the present time has fewer parts than this one. The solid head of frame in which the crank shaft runs precludes all possibility of cap bolts getting loose or shaft getting out of line.

The illustration shows the spring mechanism. This is regarded by the makers as a more practicable way of securing the elastic feature of a power hammer, than any arrangement of leather straps, rubber cushions, compressed air, leaf springs, or curved grooves, that has ever been invented.

All the working parts of the hammer are at the top, in full view of the operator, and

every part is readily accessible, being easily operated by men of ordinary experience.

Stroke adjustment is accomplished by loosening one nut on wrist pin, and one bolt on cross head, and when at required places, again tightening.

The spring is adjusted at the factory for the correct blow, but one each $1\frac{1}{8}$ inch and $\frac{1}{2}$ inch washers are sent with each hammer, one or both of which may be inserted at the ends of the springs should it become necessary.

There is treble adjustment to accommodate the height desired by the operator.

There is die adjustment so as to bring the upper and lower forming dies to conform exactly to each other.

There is also special adjustments so that the hammer can be operated from the other side.

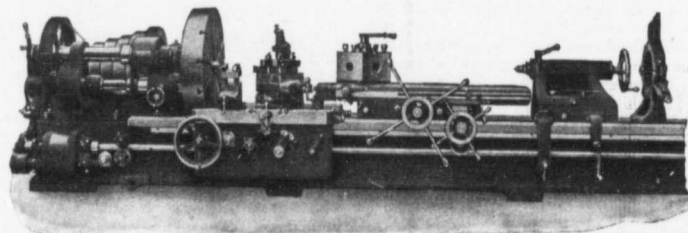
The economy of space is well shown in the illustration. The small amount of power required to run this hammer is an agreeable surprise to all who use it.

In the construction of this hammer all parts are of such proportion as to insure durability. The ram or hammer-head, links, sleeve and connection, are of steel castings, the crank, joint pins and side arms of forged steel; the castings for the other parts of a special formula to insure strength and durability, and every piece used is of iron or steel except the bronze bushing in the crank connection.

The Fairbanks' power hammer can be adapted to a great variety of work by providing special dies. With proper dies large quantities of forgings of uniform size and shape can be turned out, as for instance, carriage work, stone cutter's tools, edge tools, scythes, hatchets, shoe dies, welding gas tubes, etc. The dies always come squarely together in any size or thickness of work, so that parallel sides are insured when wanted.

Modern Heavy Pattern Lathe

The accompanying illustration is of a 36 inch heavy pattern triple geared lathe, with triple geared head and turret on shears,



Modern Heavy Pattern Lathe.

which the makers, the American Tool Works Co., Cincinnati, O., say is the largest lathe of this type with this equipment, that has ever

gone out of Cincinnati, and is the finest tool in design and workmanship ever made by this company.

The following description covers the features of the tool:

Rack gears are automatically disengaged when slipping pinion into internal gear and vice versa. Longitudinal feed of carriage is controlled by a friction, and the cross-feed by a saw-tooth clutch, operated from "Star" handle on the apron, which is "cam actuated." Rack pinion in apron can be withdrawn while thread cutting. Feed box, on front of machine beneath head stock, supplies three (3) instantaneous changes for feeding and screw cutting, for every change of gears on quadrant at head end of lathe. Gears are covered wherever possible, and all loose running gears are bronze bushed. Compound rest is fitted with "four stud" tool holder; with tool resting on a seriated steel base. Tool is clamped by the four nuts and two straps, which straps may be set in the opposite direction. Compound rest may also be fitted with double T slotted top-slide and equipped with regular tool posts set in tandem, which prevents slippage of the cutting tool, under heavy strains, and subsequent spoiling of the work.

The turret is of new design throughout, possessing many new and valuable features. It is equipped with this company's new "indexing mechanism," which is self-compensating for wear. This mechanism is located at the front of turret top-slide, which brings the locking-pin very near to the tool.

The turret can be tripped or revolved automatically or by hand; also, the mechanism can be set so as to be inoperative, when wishing to run the slide back to extreme limit, without withdrawing the locking-pin or revolving the turret. This is accomplished by the small lever shown near the large pilot wheel. The turret top-slide is supported on its outer end by a gibbed bracket attached to the front of the slide which travels along the V's of the bed and through its support eliminates all tendency to spring under a long reach. This feature is original with us. The bracket can be removed should the work

require that the turret slide pass over the carriage of the lathe.

The bottom slide of turret is moved along