A. WHITTEMORE.
Peg-Cutter.

No. 214,072. Patented April 8, 1879.

Fig. 1

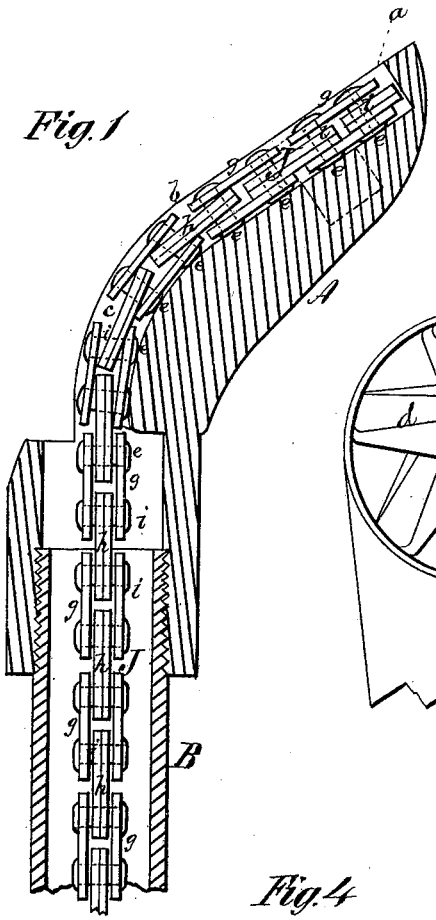


Fig. 2

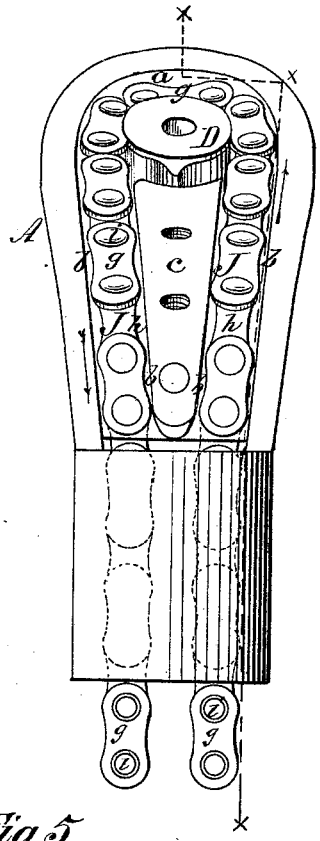


Fig. 3

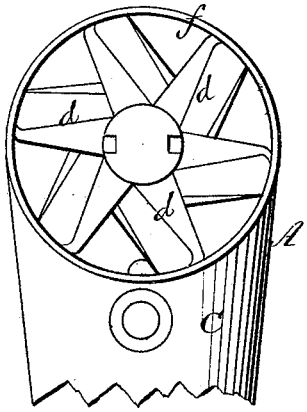


Fig. 4

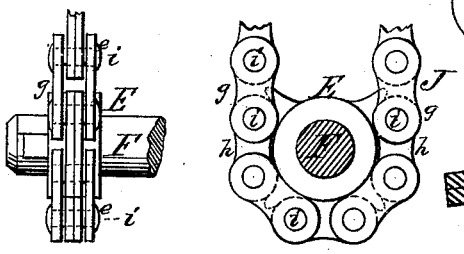


Fig. 5

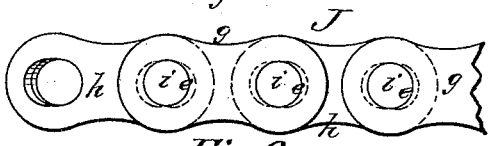
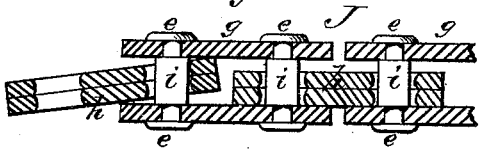


Fig. 6



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UNITED STATES PATENT OFFICE.

AMOS WHITTEMORE, OF CAMBRIDGEPORT, MASSACHUSETTS.

IMPROVEMENT IN PEG-CUTTERS.

Specification forming part of Letters Patent No. **214,072**, dated April 8, 1879; application filed February 1, 1879.

To all whom it may concern:

Be it known that I, AMOS WHITTEMORE, of Cambridgeport, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Peg-Cutters; 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 is a vertical section through the head-stock and a portion of its tubular shaft, taken in the course of dotted line *x x*, Fig. 2, showing the heads of the chain-rivets bearing on the floor of one of the channels. Fig. 2 is a front view of the head-stock and portion of the chain, the cap of the stock being removed. Fig. 3 is a top view of the cutter, its guard, and a portion of the cap. Fig. 4 is an end view of the lower chain-wheel and a portion of the chain. Figs. 5 and 6 are enlarged details of the chain.

This invention relates to an improvement on the peg-cutter for which Letters Patent No. 209,784 were granted to me November 12, 1878. In said Letters Patent I described and illustrated a rotary cutter-head which is driven by means of an endless chain passing around chain-wheels, one of which has a cutter-head rigidly secured to it. The endless chain must pass from a vertical plane through a head-stock which is at an obtuse angle to the vertical plane, and this requires the chain to be made so that it will freely flex without binding or causing undue friction or elongation when under considerable tension.

This I have accomplished by an invention which consists in an endless chain formed of separated pairs of link-plates secured to the ends of shouldered rivets, and linked together by means of loosely-applied plates having elongated holes to receive said rivets, in combination with the channeled inclined head-stock of the peg-cutter, the chain-wheels, and a rotary cutter-head, as will be hereinafter explained.

In the annexed drawings, A designates the head-stock, and B a tubular shaft or standard, on the upper end of which stock A is rigidly secured. The stock is arranged at an obtuse angle to the standard, and constructed with a removable cap, C, covering a circular recess, *a*, which terminates in two curved channels, *b b*, separated by a downwardly-converging partition, *c*. This partition is rounded laterally at its lower end, and it is perforated to receive the screws that secure cap C on the stock.

In the bottom of the recess *a* a hole is made to receive the lower stud of a chain or sprocket-wheel, D. The upper stud or hub of the wheel D has secured to it, in a suitable manner, one or more cutting blades or leaves, *d*, the cutting-edges of which may be straight or curved. Surrounding the cutter-head or cutting-blades *d* is a guard or shield, *f*, which may be scored at suitable points; or it may be made with openings through it, or in any other suitable manner. This guard or shield *f* is rigid on the cap C, and it prevents the cutters from injuring the leather while trimming pegs in boots and shoes.

The floors of the channels *b b* terminate at their lower ends in the diametrical plane of the shank of the head-stock, and a lower or driving chain-wheel, E, is arranged in about the same plane. This wheel E is keyed on a driving-shaft, F, which may turn in a vertically-adjustable bearing, as described in my Letters Patent above referred to.

J designates an endless chain, which transmits rotary motion from wheel E directly to the wheel D, on which the cutter-head is secured, and which lies flatwise on the floors of the two channels *b b*, and follows the course of these channels through the inclined head-stock A.

The following is a description of the chain J: The plates of which the chain is formed are of an even size, and are struck out of sheet metal by suitable dies. I take two of the plates to form the links *g*, and one or two to form the intermediate or connecting links, *h*. The plates forming the broad links *g* are secured to shouldered rivets *i*, which pass through oblong or enlarged holes made through the ends of the links *h*. The holes through links *h* are made large enough to allow the links to articulate sidewise while passing into and from the head-stock, and while passing over the floors of the channels *b b*. For a similar reason the spaces between the broad-link

plates are greater than the thickness of the intermediate links or plates, *h*.

In order to prevent rapid wear of the rivets and the eyes of the links *h*, the rivets *i* may be inclosed by tubes of copper or other suitable metal, which tubes would form the shoulder-abutments for the plates of the broad links; but I do not confine myself to the tubes.

It will be observed that the rounded ends *e* of the rivets *i* on the lower side of the chain-rest on the floors of the channels *b b*, and greatly reduce friction which would be caused if the plates forming the links *g* dragged on said floors while passing through the head-stock A.

I do not claim, broadly, under this application an endless chain for giving a positive movement to the cutter-head, as I show in the schedule annexed to my Letters Patent No. 209,784, of November 12, 1878, an endless chain formed of loops.

The chain which I have now adapted to the inclined head-stock A is so constructed that its plate-links will not drag over the floors of the channels in the head-stock, owing to the bosses or knobs *e*, formed on the rivets of the links *i*. Neither will this chain J stretch or fail to properly mesh with the spurs on the chain-wheels D and E, which are in planes at right angles to each other. Neither will the edges of the link-plates impinge on the sides of the channels *b b*, owing to the grooves which receive the bosses or knobs *e*.

Having described my invention, I claim—

In combination with the chain-wheels D E of a peg-cutter, the endless driving-chain J, constructed with bosses or knobs *e*, and the inclined floors of the channels *b* in the head-stock A, substantially as and for the purpose described.

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