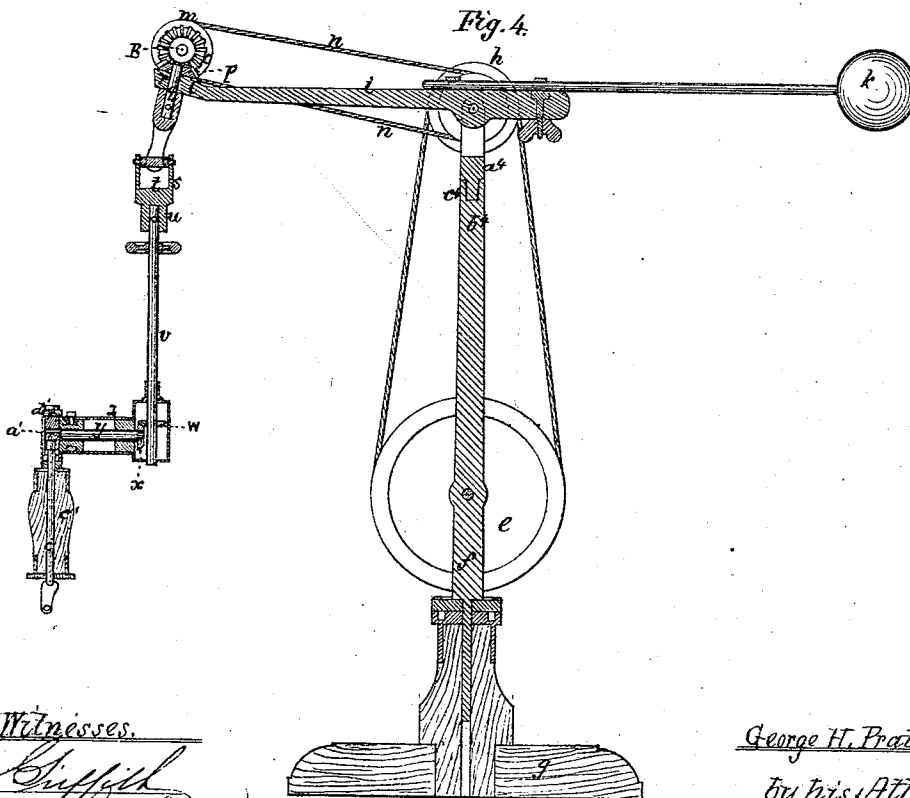
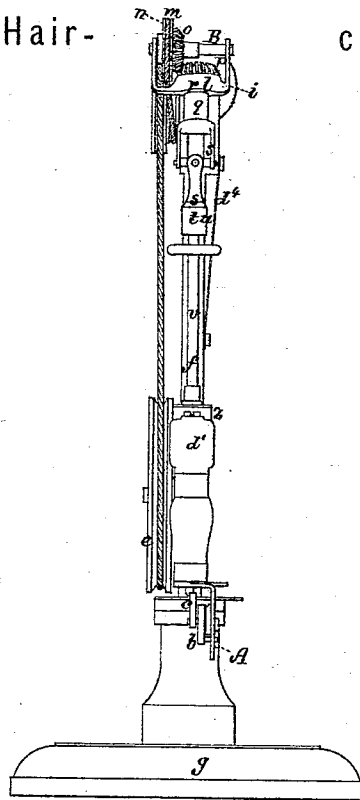


GEORGE H. *Fig. 3.*
Improvement in Hair-
No. 123,508.

PRATT.
clipping Machines.
Patented Feb. 6, 1872.



Witnesses.

E. Gifford
Lewis Goulding.

George H. Pratt.

by his Attorney
Frederick C. Curtis.

UNITED STATES PATENT OFFICE.

GEORGE H. PRATT, OF BOSTON HIGHLANDS, MASSACHUSETTS.

IMPROVEMENT IN HAIR-CLIPPING MACHINES.

Specification forming part of Letters Patent No. 123,508, dated February 6, 1872.

To whom it may concern:

Be it known that I, GEORGE H. PRATT, of Boston Highlands, in the county of Suffolk and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Machinery for Clipping Hair, Wool, &c.; and do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is a plan; Fig. 2, a side elevation; Fig. 3, an end elevation; and Fig. 4, a vertical section of a machine embodying my improvements.

My present invention relates to improvements in machinery for clipping hair or wool, or other substances, whereby a universal variable connection is obtained between the driving power and the cutter of the machine; the purpose of the invention being to enable such cutter to be properly presented, and the work of the machine to progress in any position in which it is possible to place either the machine or the cutter.

In the drawing the standard which supports the jointed mechanism for operating the cutter is shown at *f*. It is swiveled within a post interposed between it and the base *g*, and a suitable device is provided whereby the standard may be locked in any position throughout the circle which it is permitted to describe about the axis of the post. The swiveling of the standard enables the crane and its suspensories to be swung about, and thus carry the cutter from points considerably distant from one another. The standard *f* is divided into two parts, *a*¹*b*¹, united by a tenon and socket connection, *c*¹, and a spring, *d*¹, in such manner that one may revolve within the other, and a short rotary movement may be obtained in order to permit the crane which supports the cutting mechanism to be swung laterally sufficiently to accommodate the cutter to short distances. The spring offers a yielding resistance to this movement and causes the crane to return to its normal position. This post or standard may be used to advantage with any suitable cutting mechanism. I prefer to use that which is shown in the drawing. This mechanism is composed

of a crane, *i*, pivoted to the standard, as shown, carrying on one end a sliding equipoise-weight, *k*, and on the other end the devices for transmitting motion to the cutters, which may be described as follows: B is a short horizontal shaft mounted within a furcated head, *l*, making part of the crane *i*, such shaft carrying at one end a pulley, *m*, about which and the pulley *h* an endless band *n* travels, the shaft B further carrying an upright beveled gear *o* on the inner face of the pulley *m*, meshing into and driving a beveled gear, *p*, within the lower part of the head *l*, this latter gear being affixed to the upper extremity of a journal, *q*, which extends through and revolves freely within the bottom or base *r* of the head, and constitutes the hub of one-half or gimbal of a universal joint, *s*, of well-known construction, the lower gimbal of such joint being shown at *t* and the hub of the latter at *u*, this last-named hub being fixed to the upper extremity of a vertical shaft, *v*, while to the lower extremity of such shaft a third beveled gear, *w*, is secured. The beveled gear *w* meshes into and drives a fourth beveled gear, *x*, which is mounted upon one end of a short horizontal arbor, *y*, this arbor, as well as the two last-named gears, being inclosed within a tubular case or box, *z*, suspended from the lower end of the shaft *v*. Upon the opposite end of the arbor *y* is a short crank, *a'*, while to the wrist-pin of this crank is pivoted the upper end of the connecting-rod *c*, this rod being carried downward through a tubular handle, *c'*, which is part of the head *d'* of the tubular case *z*. The pulley *e* drives the pulley *h*, and this latter pulley revolves the pulley *m*, while this last-named pulley rotates the shaft B and beveled gear *o*. The gear *o*, operating through the gear *p*, rotates, through the agency of the universal joint *s*, the shaft *v*; while this shaft in its turn, by means of the gears *w* and *x*, puts in revolution the arbor *y*; while, finally, this arbor, by its crank and connecting-rod, effects reciprocating movements of the cutters attached to or connected with such rod; therefore, by rotating the driving pulley *e*, the cutting portion of the machine is attached. The upright shaft *v* should be provided with a balance-wheel to equalize and steady its motion.

What I claim as my invention is—

The combination, with the crane *i*, which carries the jointed mechanism for imparting movement to the cutter of the standard *f*, composed of the two parts *a*⁴ *b*⁴, the one tenoned into the other, and held together by the spring strip *d*⁴, which permits a motion of the upper part independently of the lower, and the

lower part *b*⁴ swiveled to the post or base upon which it is supported, substantially as and for the purposes herein shown and set forth.

GEORGE H. PRATT.

Witnesses:

FRED. CURTIS,
EDW. GRIFFITH.