A. J. SHIPLEY.

Feed Motion.

No. 85,249. Patented Dec. 22, 1868.

Fig. 1.

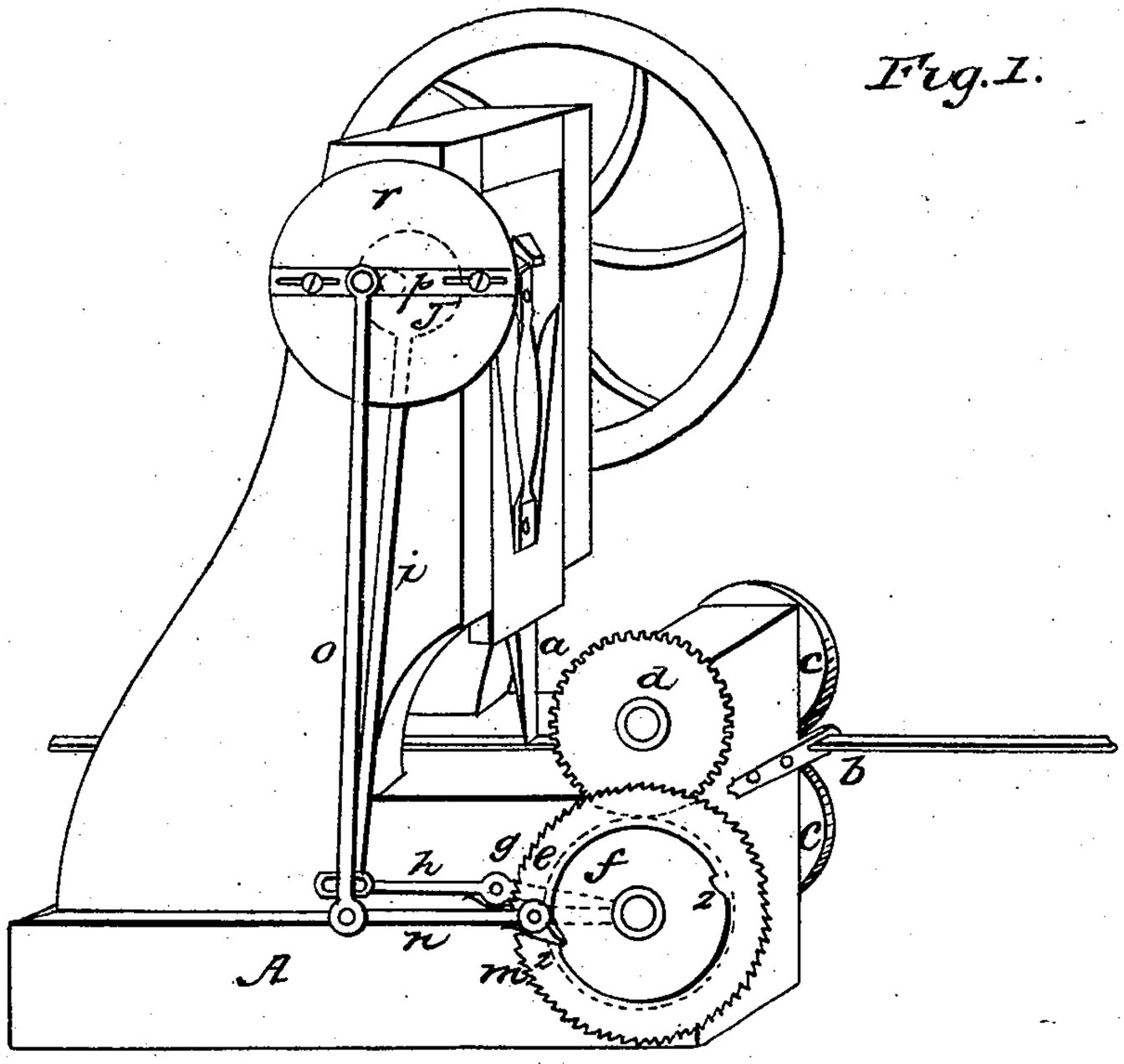

Fig. 2

WITNESSES:

Wm. H. Gooding

Edward Collier

INVENTOR

Alfred J. Shipley

United States Patent Office.

ALFRED J. SHIPLEY, OF WATERBURY, CONNECTICUT, ASSIGNOR TO THE SCOVILLE MANUFACTURING COMPANY, OF SAME PLACE.

Letters Patent No. 85,249, *dated December* 22, 1868.

IMPROVED FEED-MOTION.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, ALFRED J. SHIPLEY, of the city of Waterbury, in the State of Connecticut, have invented an Improved Feed-Motion for machines for cutting the teeth of metal combs; and I declare the following, taken in connection with the drawings accompanying this specification, as part thereof, to be sufficient to enable experts to make and use the same.

The nature of my improvement consists in an adjustable occasional feed, to enable combs to be cut with facility from long strips of sheet-metal.

The drawings show—

In Figure 1, a press with all the parts in view in perspective.

In Figure 2, a comb for reference cut in a strip of metal.

An ordinary press, A, has a cutter, *a*, suitable to the required teeth of the comb, working into a die beneath, in the usual manner.

The strip of metal prepared to the width needed for the size of the intended comb, passes through the guide *b*, between a pair of feed-rolls, *c c*, which could, if required, be used to emboss the metal in passing.

The rolls are driven by the gear *d*, which is seen working in another wheel, on the shaft of the lower feed-roller, as shown by dotted lines.

On the same shaft are two ratchet-wheels, *e* and *f*. The larger one, *e*, has a notch for a tooth in the comb, and is driven by the pawl *g* on the lever *h*, whose fulcrum is on the shaft that drives the lower feed-roll *c*. Said lever being attached to the rod *i*, is moved by an eccentric, *j*, shown by dotted lines on the main shaft of the press.

The ratchet-wheel *f* is provided for the purpose of setting the metal strip more than one notch or tooth ahead, at regular distances, to form the larger or wider tooth at each end of a comb, *k*, fig. 2. It does this by being provided with one indentation, when the circumference of the wheel is equal to the required length of a comb, or more indentations, when a larger wheel is used. The drawing shows two, 1, 2.

The pawl *m*, on the lever *n*, is moved by the rod *o*, which is attached to an adjustable slide, *p*, in the crank-face plate *r*, so that by lengthening or shortening the stroke of the crank, the ratchet-wheels and feed-rolls will set the metal strip forward any required distance, to form suitable ends to each comb.

I am aware that to operate a pair of feed-rollers by means of a crank or eccentric, through the medium of a connecting-rod, ratchet, and pawl, is not new, and I do not claim these devices, nor their combination; but

What I do claim as of my invention, is—

Combining, with the aforesaid combination of devices, an auxiliary set of devices, for imparting, at intervals, a feed-movement of accelerated velocity, and of greater extent than that imparted by the aforesaid combination, constructed and arranged substantially as herein described.

ALFRED J. SHIPLEY.

Witnesses:

W. M. GOODING,

EDWARD COLLVER.