C. W. Wyatt,

Making Fellies.

No. 12,082. Patented Dec. 12, 1854.

Fig: 2.

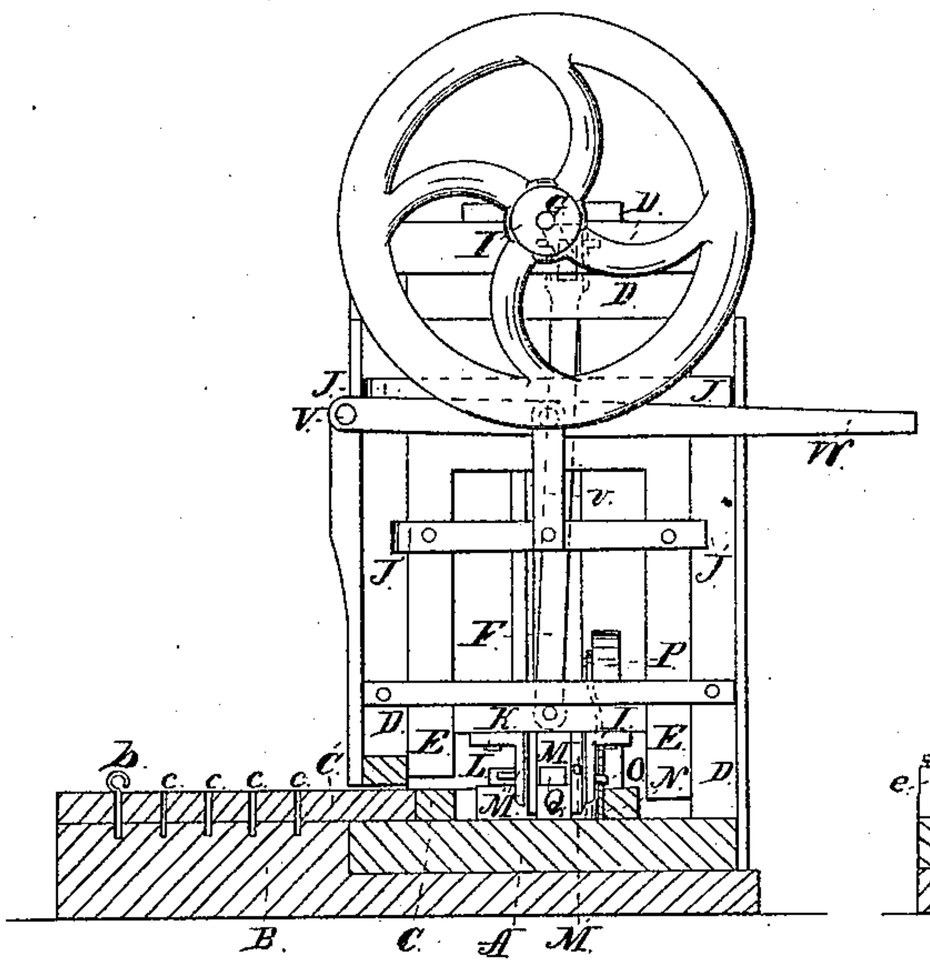


Fig: 1.

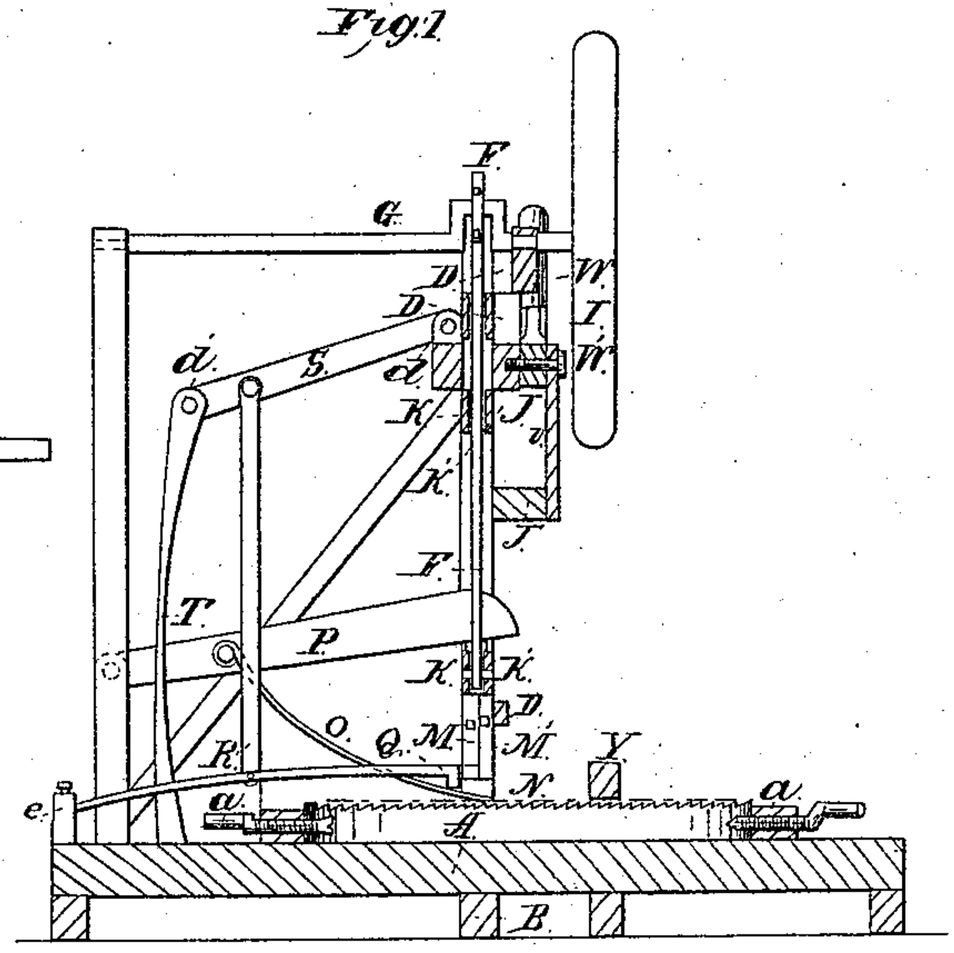
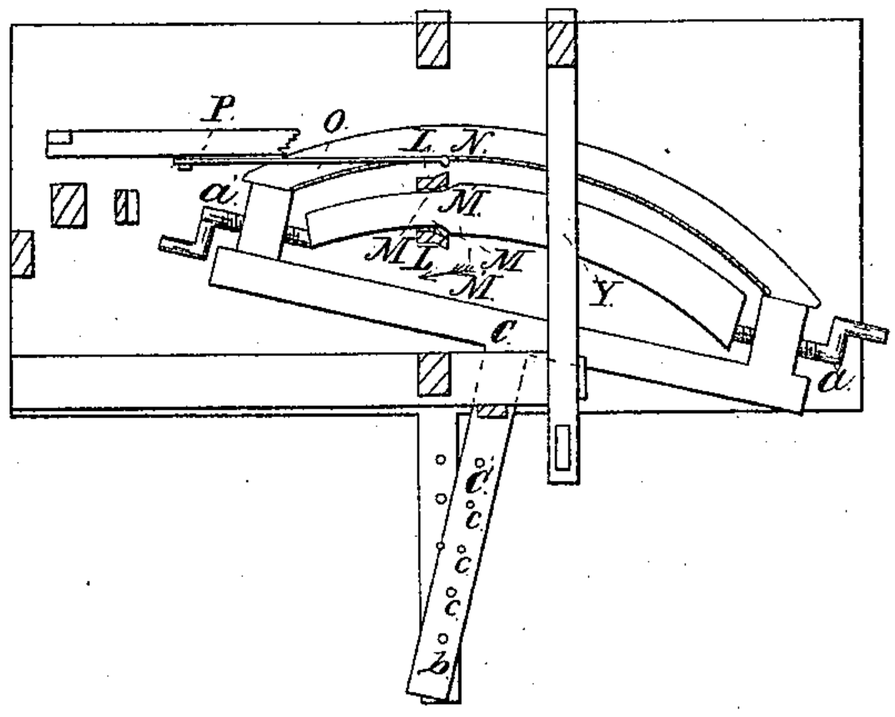


Fig: 3.



UNITED STATES PATENT OFFICE.

CHARLES W. WYATT, OF NEWBURGH, NEW YORK.

MACHINE FOR DRESSING FELLIES.

Specification of Letters Patent No. 12,082, dated December 12, 1854.

To all whom it may concern:

Be it known that I, CHARLES W. WYATT, of Newburgh, in the county of Orange and State of New York, have invented a new and useful Improvement in Machines for Dressing Fellies; and I do hereby declare that the following is a full, clear, and exact description of the same.

The nature of my improvement consists in providing a frame which rests upon a suitable bed plate and rotates horizontally around an adjustable axis, the felly being secured within the frame, and operated upon by vertical cutters, in such a manner that as the frame and felly rotate, the latter is rapidly dressed to any desired curve.

To enable others skilled in the art to make and use my improvement I will proceed to describe its construction and operation, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a side elevation of my improvement. Fig. 2, an end elevation of the same. Fig. 3, a vertical view, a portion of the upper part of the machine being removed.

Similar letters of reference indicate corresponding parts in the several figures.

A, bed plate of the machine; B, bottom supporting beams; C, felly frame; C′, guiding bar of same; D, upright frame; E, cutter frame moving in the upright frame D; F, cutter frame connecting rod; G, driving crank; I, fly wheel; J J J′, cross bar guides of cutter frame E; K K′, cross heads; L, cutter stock; M M M′ M′, cutters; N, curved rack; O, pawl; P, pawl lever; Q, felly spring; R, spring connecting rod; S, spring lever; T, spring standard; U, steadying bar; W, hand lever; W′, bolt which unites lever W with frame E; V, fulcrum of the same; *a a′*, felly adjusting screws; *b*, axis pin of felly guide bar C′; *c*, *c*. *c*, *c*, holes for the axis pin; *e*, fastening of spring Q; *d d′*, pins of lever S.

The felly to be dressed is secured in the frame C, between the adjusting screws *a a′*, in the manner shown in Fig. 3. To the frame C, the guide bar C′ is attached, the axis of the frame being at pin *b*. The dressing of the felly is accomplished by causing vertical cutters M M M′ M′ to fall upon the same, as it rotates with frame C. The curve to which the felly is reduced corresponds with the diameter of a circle whose center is at *b*, consequently by altering the axis of the frame C, the curve of the felly may be correspondingly changed. The axis is altered by moving the pin *b*, the holes *c* being provided for that purpose.

Rotation is given to the frame C, by means of pawl O, the extremity of which fits the teeth of rack N, which is secured to the circle of frame C, in the manner shown in Fig. 3. Pawl O, is connected with pawl lever P, one end of which rests on cross head K, whereby it receives motion. The felly slides on the bed plate A, and rotates in direction of the arrow, Fig. 3, during the operation of dressing.

The cutters M, M, M′, M′, have a vertical movement, and trim off the sides of the felly, as it rotates beneath them. The cutters are attached to stocks L. The forward cutters M′ M′, stand at angle with the others (M M) and have an outward flare, whereby the rough outer portions of the felly are cut transversely to the grain of the same, which secures good work.

The cutter stocks L are fastened to the cross head K. The frame E and cross heads K, have vertical movement between frame D. When the machine is propelled by hand the requisite motion is communicated by means of the hand lever W, which is united with the cross bar guide J, by the pin W′. When steam or other power is employed, a pulley is attached to crank G, for the purpose, the requisite motion of the cross heads being communicated from the crank by means of the connecting rod F, in the manner shown.

The felly is prevented from rising, during the dressing operation, by means of spring Q, which is connected by rod R with lever S, one end of which rests on cross head K′ from which it receives motion. It will be perceived that by the location of rod R back of the center of S, the rise and fall of the spring Q, is slower than that of the cutters. The spring Q in fact, never entirely releases its pressure on the felly, though when the cutters rise and it is necessary for the felly to move, the pressure of the spring is very light. When the cutters descend, however, and it is requisite to hold the felly perfectly firm, the spring presses upon it with great force.

I am not limited to the precise form of parts herein described, for there are several other forms in which by involving the same

general principles, a working machine can be produced.

The cutters are adjusted to dress different sized fellies, by loosening the screws which secure them to their stocks, and separating the cutters to the desired width.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is—

1. The method of dressing fellies, substantially as herein described, which consists in securing the felly within a horizontally rotating frame, and subjecting it (the felly) to the action of suitable cutters during said rotation, the axis of the frame, and consequently the curve of the felly, being changeable at pleasure, in the manner described.

2. The combination of the cutters M′ M′ with cutters M M and stocks L, L, in the manner and for the purposes set forth.

3. The combination of the curved rack N with the felly frame C, in the manner and for the purposes set forth.

4. The combination of the spring Q, with lever S, and standard T in the manner and for the purposes set forth.

CHARLES W. WYATT.

Witnesses:

SAMUEL WYATT,

JAS. H. SHERWOOD.