H. H. Dean,

Making Fellies.

No. 10,884. Patented May 9, 1854.

Fig. 1.

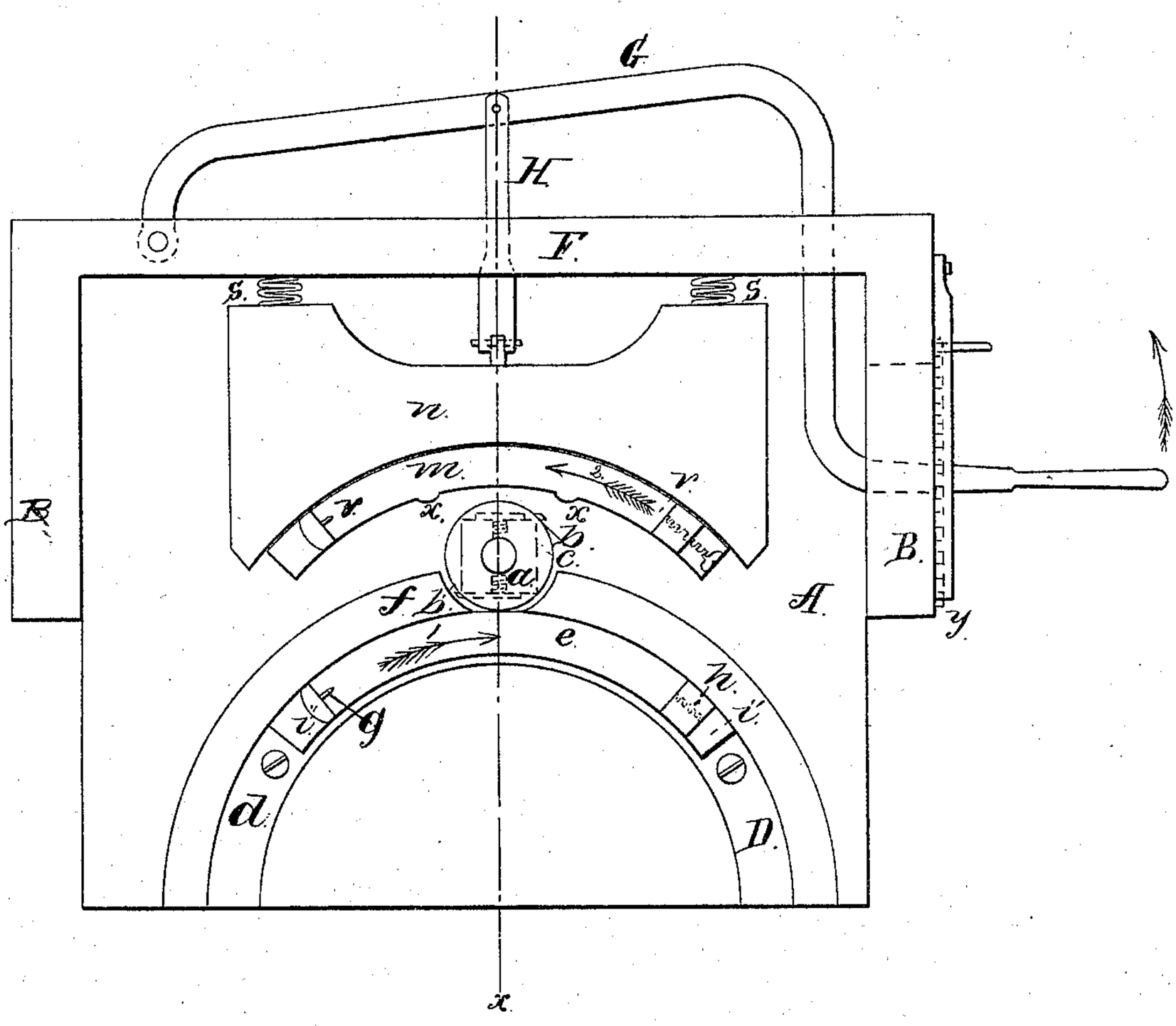
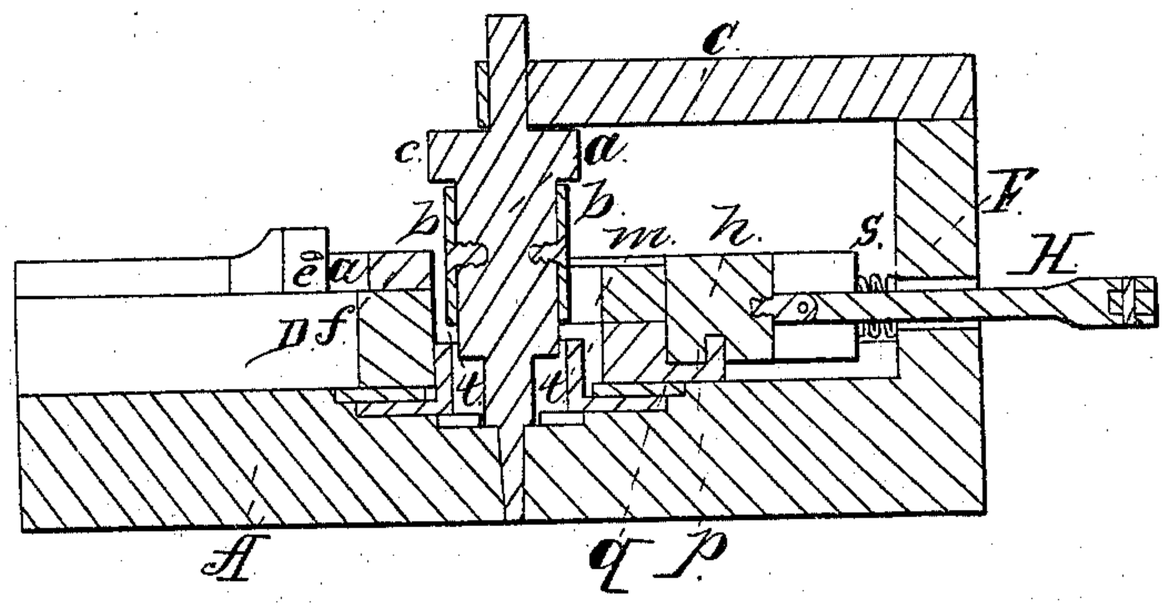


Fig. 2.



UNITED STATES PATENT OFFICE.

HEMAN H. DEAN, OF ADRIAN, MICHIGAN.

FELLY-MACHINE.

Specification of Letters Patent No. 10,884, dated May 9, 1854.

To all whom it may concern:

Be it known that I, HEMAN H. DEAN, of Adrian, in the county of Lenawee and State of Michigan, have invented a new and useful Improvement in Machines for Planing-Fellies; 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, forming part of this specification, in which—

Figure 1 is a plan of the machine. Fig. 2 is a vertical section on line *x x* of Fig. 1

Similar letters of reference denote the same part of the machine.

The nature of my invention consists in the employment of a combination of devices, hereafter to be described, for removing the concave felly guide from the cutters, and also for regulating the approach of said guide and felly to the cutters.

To enable other skilled in the art to make and use my invention I will proceed to describe its construction and operation.

In the drawing A is the bottom, B the sides, and C the top of the frame. Held by the top and bottom A and C is the square shaft *a*, armed with the cutters *b*, and revolved by a band over the pulley *c*. In front of the shaft *a* is the semi-circular tram or guide D, in the rabbet *d* of which the clamp *e* is movable, its convex edge pressing against the flange *f*, except where said flange is cut away to admit of the rotation of the cutter shaft *a*. Between the shoulders *i* and *i'* of the clamp the felly is secured, the pin (*g*) securing one end while a screw through the nut *h* secures the other. This is the arrangement for dressing the convex edge of the felly.

Behind the shaft *a* is the clamp *m*, for holding the fellies in position to dress their inner edges. The clamp moves under the guide *n*, the tongue *p* of which by entering the groove *q* of the clamp (as shown in Fig. 2) prevents any slipping of the same. The felly is held by the pin *r* and screw *r'*, as described for the convex clamp. The guide *n* has between it and the back piece F, the springs *s*, which press the concave face of the clamp *m* against the rim *t*, in which the shaft *a* revolves. The guide piece *n* is drawn back by the lever G and rod H, teeth (*y*) at the side of the machine keeping the lever in the position to which it may be drawn. On the concave face of the clamp *m* are the projections *x* which by pushing back the felly as they press against the rim *t* cause a coresponding elevation to be formed on the concave edge of the felly for strengthening the same at the point where the spokes are inserted.

The operation of my improved machine is as follows:—The felly after cutting and fitting is placed in the clamp *e*, between the pin *g* and screw through the shoulder *i'*, the portion to be dressed off projecting over the convex side of the clamp. The shaft *a* is rapidly revolved and the clamp *e* moved by hand in the direction of arrow 1 pressing against the flange *f* of the guide D, the cutters *b* rapidly removing the projecting portion of the felly as it passes between the points when the flange *f* is cut away for the rotation of the cutters. After a sufficient number of fellies have been dressed on their convex edge, the lever G is moved in the direction of arrow 3, drawing back the guide *n*, so as to admit of a felly being secured in the clamp *m*, between the pin *r* and screw *r'*. The lever G is then allowed to move to the front of the machine and the springs *s* to press the clamp *m* against the rim *t*. The clamp *m* is then moved by hand in the direction of arrow 2, causing the rotary cutters *b* to dress the concave edge of the felly, in the same manner as the convex had been dressed, the projections *x* serving to push the felly from the cutters and cause a similar projection to be made on the felly for strengthening the same at the point of insertion of the spokes, the springs, *s*, permitting the guide, *n*, to recede from the cutters, and throwing the guide forward after the projections, *x*, are passed. As each felly is finished, the lever G is moved in the direction of arrow 3, drawing back the guide *n* and admitting of the removal of the dressed

felly, and the insertion of another, the teeth, *y*, holding the lever, G, in any position to which it may be withdrawn.

I do not claim the cutters, clamps, or guides; but

What I do claim as new, and as my invention, is—

The combination of mechanism operating the guide, *n*,—namely, the lever, G, rod, H, and springs, *s*, arranged and operating substantially as set forth, for the purposes specified.

In testimony whereof, I have hereunto signed my name before two subscribing witnesses.

HEMAN H. DEAN.

Witnesses:
BENJ. F. PRICE,
C. C. STEARN.