WILLIAM G. BEACH.

Improvement in Machines for Turning Hubs.

No. 120,931. Patented Nov. 14, 1871.

fig. 1

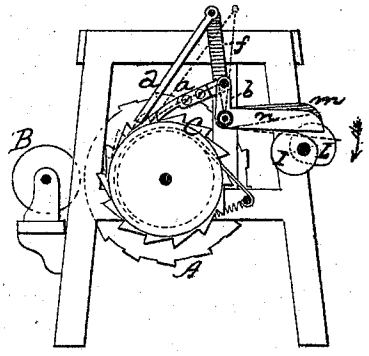


fig. 2

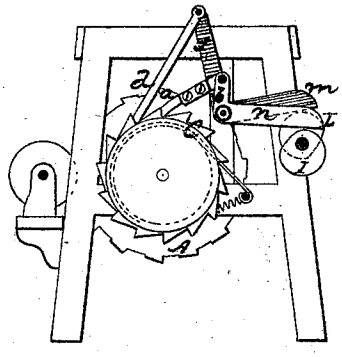
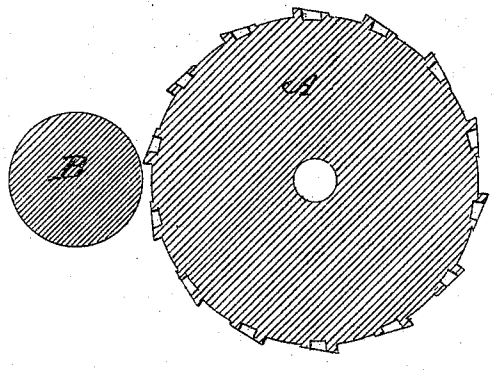


fig. 3.



Witnesses.

A. J. Tibbits

J. H. Shumway

William G. Beach
Inventor
By his Atty.
John E. Earle

UNITED STATES PATENT OFFICE.

WILLIAM G. BEACH, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO THE NEW HAVEN WHEEL COMPANY, OF SAME PLACE.

IMPROVEMENT IN MACHINES FOR TURNING HUBS.

Specification forming part of Letters Patent No. 120,931, dated November 14, 1871.

To all whom it may concern:

Be it known that I, WILLIAM G. BEACH, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Machine for Turning Hubs; and I do hereby declare the following, when taken in connection with the accompanying drawing and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawing constitutes part of this specification, and represents, in—

Figures 1 and 2, side views of a machine illustrating my improvement; and in Fig. 3, a transverse section through the hub and cutter-cylinder.

This invention relates to an improvement in machine for turning carriage-hubs, for which Letters Patent were granted to J. J. Nemston, and dated April 5, 1870. In that machine the cutter-cylinder A is constructed to receive the several cutters, and to this a constant but slow rotary movement is imparted, so that, revolving, the hub-blank B—the revolution of which is very rapid—is dressed by the succession of cutters placed upon the cutter-cylinder A, so that a single revolution of the cylinder A dresses and shapes the hub. As the movement of the cylinder A is constant, and must be slow in order that the cutter be properly presented to dress the hub, and so slow that when the cutter is working it should be nearly stationary, while a great advantage is gained by the use of this machine, much of the time required for dressing the hub is lost from the presentation of one cutter to the presentation of the second, and so on. To save this time, and thus add to the utility of the machine, is the object of this improvement; and it consists in imparting to the cylinder an alternately slow and quick movement, the slow movement while the cutter is operating, and the quick movement between the operation of one cutter and the next. To this end I arrange on the cylinder-shaft a toothed wheel, C, with two pawls, *a* and *d*, each arranged respectively on one arm, *b f*, of the levers *n m*. These two levers *n m* are actuated by cams I L. The arm *b* is very much shorter than the arm *f;* hence the throw of the pawl is proportionately longer, the action of the cams being about equally timed, and to these cams a constant rotary motion is given. Starting, then, in the position seen in Fig. 1, the cam I is rising to actuate the lever *n*, and throws forward, giving a slight movement to the cylinder, sufficient to cause the cutter to pass the hub; at the same time the other lever *m* is dropping, causing the pawl *d* to throw back, as denoted in Fig. 1. So soon as the cutter has done its work the other cam L comes into action, throwing the pawl *d* forward, as in Fig. 2, turning the cylinder quickly forward to present the next cutter; thus the cutter remains as near stationary as possible while acting, and in the same length of time after it has acted the cylinder is turned to present the next cutter, thereby saving a very large proportion of the time required for the operation of all the cutters.

It will be readily understood by those skilled in mechanics that various devices for operating the pawls may be substituted for the cams and levers here represented.

I claim as my invention—

The hub-turning machine, consisting of the cutter-cylinder A and device for rotating the block, in combination with mechanism substantially such as described for imparting an alternately slow and quick movement to the said cutter-cylinder.

WM. G. BEACH.

Witnesses:
A. J. TIBBITS,
J. H. SHUMWAY.

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