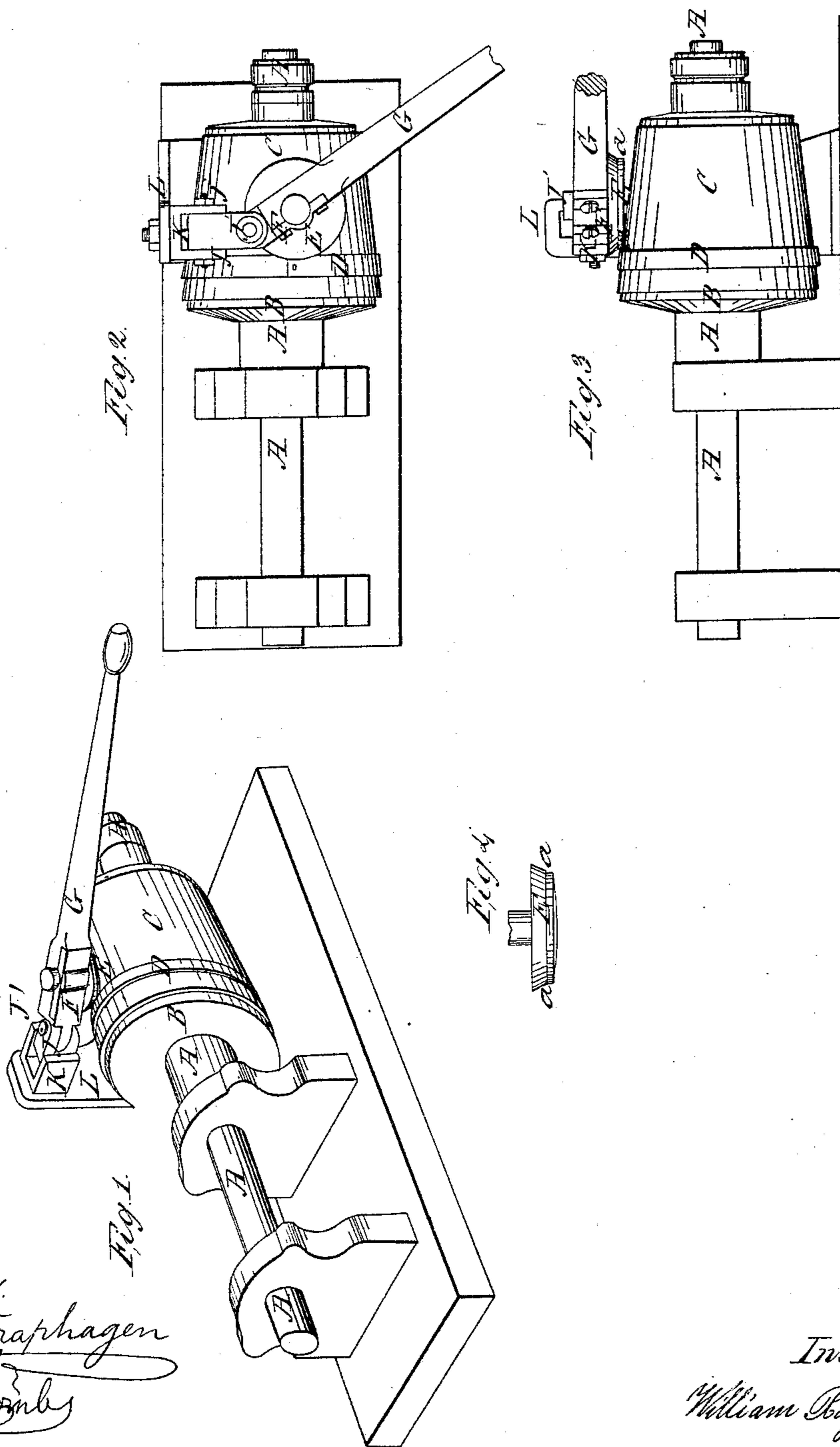


*W. Raymond,  
Making Barrels.*

*No 24,576.*

*Patented June 28, 1859.*



*Witnesses.*

*R. D. Traphagen*

*M. G. G. G.*

*Inventor*

*William Raymond*

# UNITED STATES PATENT OFFICE.

WILLIAM RAYMOND, OF MARLBORO, NEW HAMPSHIRE.

MACHINE FOR DRIVING HOOPS ON PAILS, &c.

Specification of Letters Patent No. 24,576, dated June 28, 1859.

*To all whom it may concern:*

Be it known that I, WILLIAM RAYMOND, of Marlboro, in the county of Cheshire and State of New Hampshire, have invented a new and useful Machine for Driving Hoops on Pails, Tubs, &c.; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, of which—

Figure 1, represents a perspective view of the machine showing the operation of driving on the hoop. Fig. 2, is a plan view of the same. Fig. 3, is an elevation of Fig. 2. Fig. 4, shows the conical driver detached from the machine.

The nature of my invention consists in arranging a conical wheel in suitable bearings, in a jointed lever having a universal motion, so that when the hoop is placed upon the tub or pail or other like utensil and a rotary motion given to the tub the edge of the wheel is brought in contact with the edge of the hoop, it can be driven firmly upon the tub with great facility and speed. At the same time the surface of the tub will not be indented in the operation which is frequently the case in driving hoops on tubs or pails by the old method, described as follows.

This invention is for driving the top hoop on pails or other like vessel turned in a lathe requiring a hoop to be driven upon it before taken from the lathe.

A, represents the mandrel upon which the tub is turned, it being fixed upon a drum B.

C, is the tub or pail which having previously been turned is undergoing the operation about to be described. A hoop D, is placed upon the tub and the lathe set in motion, giving to the tub a rotary motion. The hoop is then driven up rapidly on the tub by a driver E, which is a conical wheel fixed to a spindle which turns in a suitable box F, on lever G. This wheel is made slightly crowning on its under surface so that only one side will bear upon the surface of the tub, and by this means the wheel has a rotary motion given to it, by the friction of the tub as the tub rotates. The portion *a*, of this driver E, is made straight for about a sixteenth of an inch and then

it flares out as represented by Fig. 4; the object of which is to have the beveled part strike the hoop first which bears the hoop down on the tub and causes it to flare easier than if the whole surface of the driver was at right angles to the hoop. When the hoop commences to get tight on the tub the straight portion of the driver comes in contact with the edge of the hoop and by a pressure upon the lever G, it is instantly driven firmly upon the tub, the tub of course being rotated in the operation.

The manner of holding and operating the driver E, is by the lever G, in which the driver has its bearings as above stated. This lever is pivoted to a link J, by a vertical bolt J', so as to allow it a free horizontal motion. This link J, is pivoted to a fixed link K, and this allows the lever a free vertical motion. The link K, is made vertically adjustable in a standard L, so that by raising or lowering this link to the various sizes of tubs the driver E, is kept in a horizontal position. When the operation of driving on one hoop is completed the lever is thrown up in a vertical position out of the way for another tub to be placed upon the drum.

In putting my invention into practice it is not absolutely necessary that a conical wheel should be used, yet it possesses an advantage over any other, in efficiency of operation. Nor is it necessary that the wheel should be loose in its boxes so as to rotate with the tub in driving on the hoop. A fixed driver may be used in conjunction with the jointed lever above described, yet I prefer to adopt the form and arrangement of driver set forth in the drawings and above described.

What I claim as my invention and desire to secure by Letters Patent, is,

The employment of a driver, when either fixed or turning loosely in its bearings, and, operated by means of a jointed lever or otherwise, so as to press against and drive the hoop upon the tub when a rotary motion is given to said tub as above described.

WILLIAM RAYMOND.

Witnesses:

J. W. COOMBS,  
R. S. SPENCER.