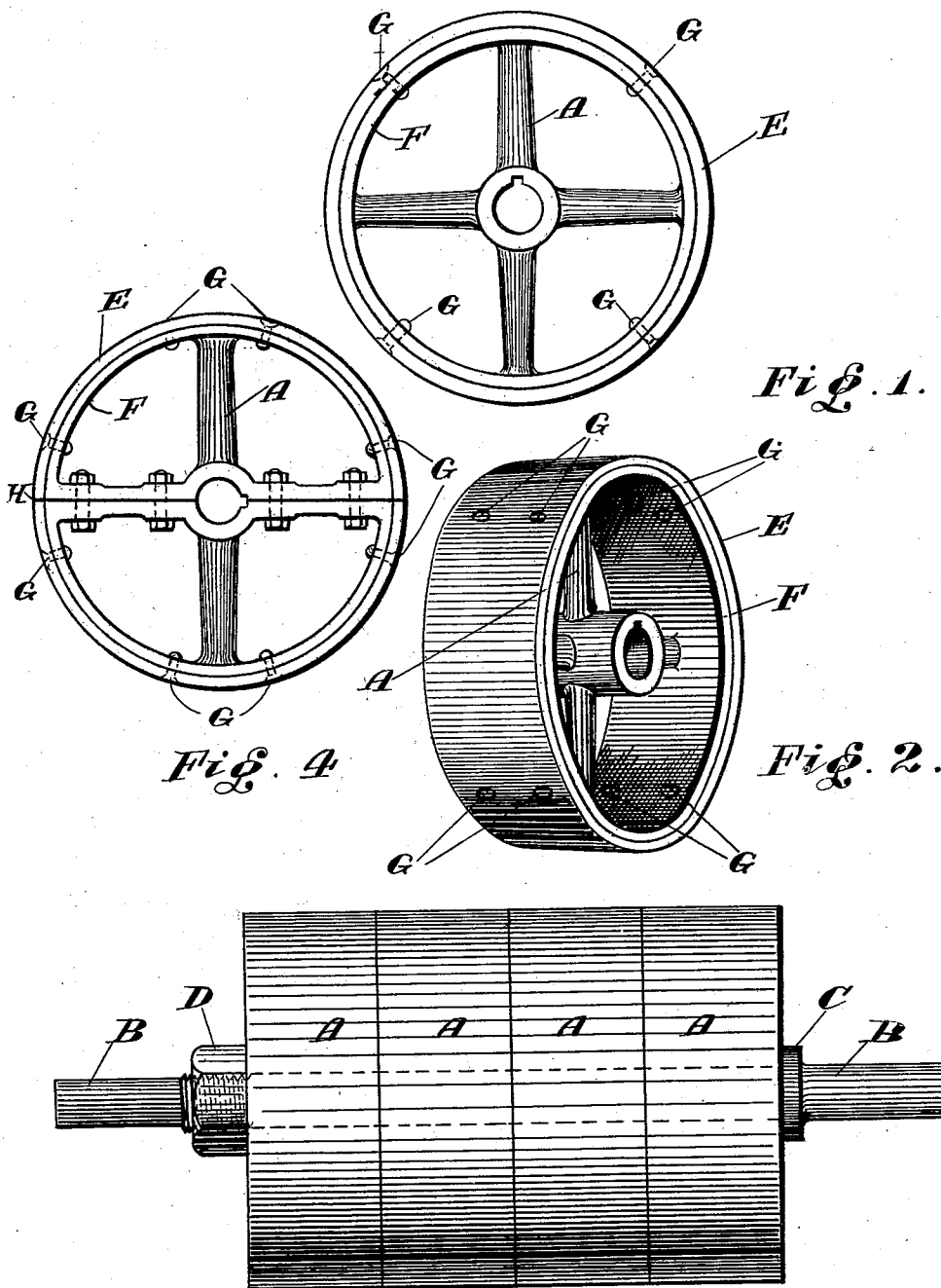


(No Model.)

C. T. J. VAUTIN.
METHOD OF FACING PULLEYS.

No. 507,467.

Patented Oct. 24, 1893.



Witnesses:

E. B. Bolton

E. H. Sturtevant.

Inventor: *Fig. 3.*

Claude Theodore James Vautin

By

[Signature]
his Attorneys

UNITED STATES PATENT OFFICE.

CLAUDE THEODORE JAMES VAUTIN, OF LONDON, ENGLAND.

METHOD OF FACING PULLEYS.

SPECIFICATION forming part of Letters Patent No. 507,467, dated October 24, 1893.

Application filed January 18, 1893. Serial No. 458,824. (No specimens.)

To all whom it may concern:

Be it known that I, CLAUDE THEODORE JAMES VAUTIN, residing at London, England, have invented an Improvement in Methods of Facing Pulleys, of which the following is a specification.

My invention relates to an improved method of covering the peripheries of driving pulleys or other surfaces with hardened paper, leather, or other vegetable pulp, so that the turning of the faces of the pulley or other driving drum or wheel may be dispensed with and the outer surface of the pulp covering affords a true surface giving a much better frictional grip to an ordinary driving belt than can be obtained from an ordinary metal face.

My invention consists in the application of a continuous rim of homogeneous hard, and water-proofed pulp fiber to the periphery of a pulley, drum or other mechanism and in the special method hereinafter described for effecting this purpose.

In order that my invention may be the better understood I will now describe the same in relation to the drawings hereunto annexed reference being had to the letters marked thereon.

Like letters refer to like parts in the various figures.

Figure 1 is a view of an ordinary pulley with a rim according to my invention. Fig. 2 is a perspective view of the same. Fig. 3 is a view of a series of pulleys or drums mounted upon a mandrel to receive the pulp rim. Fig. 4 is a view of a split pulley with the pulp rim attached.

To carry my invention into effect in the case where a new article is to be produced I take a series of rough unturned iron pulleys, drums, or wheels A placed side by side upon a shaft B so that they will revolve therewith and apply the pulp directly thereto to make a permanent periphery, the pulley being then ready for finishing.

In order to insure the pulleys turning with the mandrel I arrange a shoulder C at one end and jamming nut D at the other end of the shaft B, so as to press the pulleys together, and against the collar C to form a

drum. I then rotate the said drum in contact with a traveling felt band carrying a layer of prepared pulp in a similar manner as is employed in the known manufacture of barrels, card board, &c., so that the said drum will take up on its surface a uniform layer of the said pulp; and I continue the rotation of the said drum until the pulp has accumulated to a sufficient thickness. The drum is then removed from contact with the traveling felt band, and the pulp is dried, and can be treated to consolidate the rim if necessary by rolling pressure or planishing which will render it hard and true. If desired, it may be subsequently turned in a lathe. The said pulp surface is then treated by soaking it in a mixture of creosote or carbolic acid and a hydro-carbon such as pitch, bitumen, or asphaltum, or with heated paraffine or ozocerite wax, or a mixture of resin and resin oil; to render it waterproof and impervious to weather, and also to increase the durability of the pulp rim. The periphery of the drum is then divided by a parting tool and the pulleys are withdrawn separately from the mandrel covered with a pulp surface E which adheres to the under material of the rim F and are then ready for use as far as their outer surfaces are concerned and appear as shown in Figs. 1 and 2 for example.

It is obvious that I may coat a single pulley in precisely the same manner as a number of pulleys as hereinbefore described.

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

1. The herein described process of making pulleys consisting in taking the body portion or pulley proper placing the same upon a revolving shaft and in contact with a supply of pulp or fibrous material and thereby forming a permanent pulp periphery on the pulley body and finally finishing the periphery while on the pulley to make a complete article, substantially as described.

2. The herein described process of making pulleys consisting in placing two or more pulley bodies on a revolving shaft side by side, and abutting each other, revolving the same

in contact with a supply of fiber or pulp material to make a continuous cylinder about the periphery of the pulley bodies, dividing said cylinder transversely to correspond with
5 the pulley bodies and finally finishing the permanent pulp peripheries, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CLAUDE THEODORE JAMES VAUTIN.

Witnesses:

RICHARD A. HOFFMANN,

CHARLES H. CARTER.