No. 782,674. PATENTED FEB. 14, 1905.

T. W. LOWE.

PATTERN FOR CASTING GEAR WHEELS.

APPLICATION FILED MAY 19, 1904.

Fig. 1

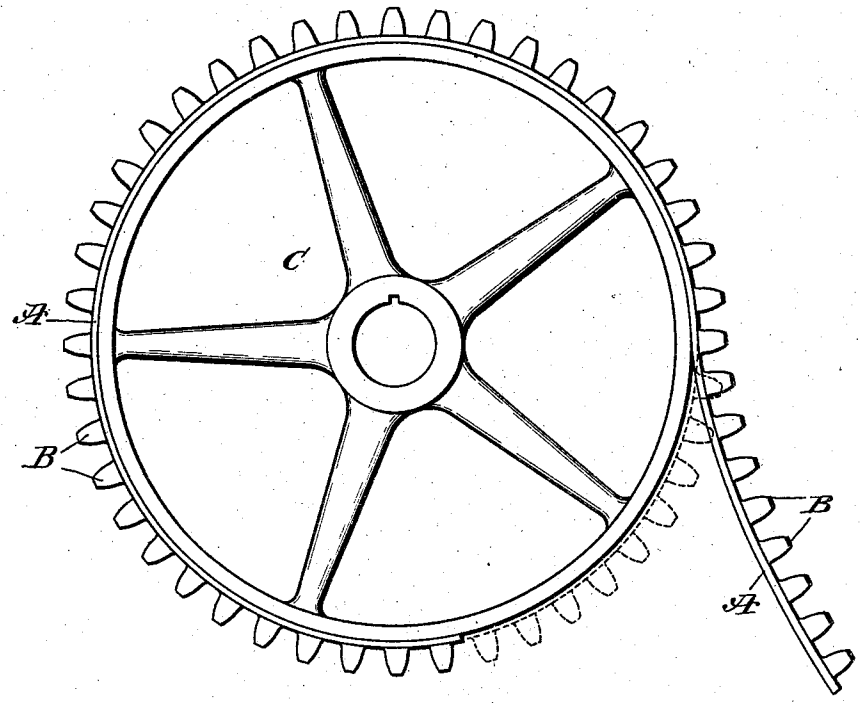



Fig. 2

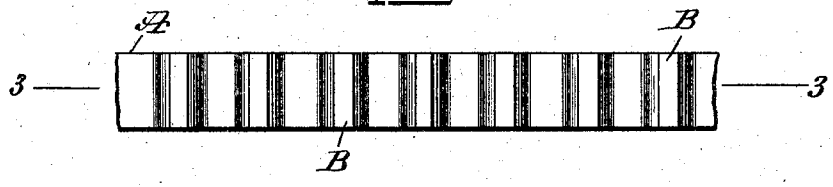
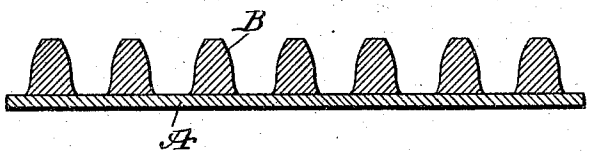



Fig. 3




WITNESSES:

J. A. Brophy

Geo. J. Hosterz

INVENTOR

Theodore W. Lowe

BY Munn & Co

ATTORNEYS

No. 782,674. Patented February 14, 1905.

# UNITED STATES PATENT OFFICE.

THEODORE WICK LOWE, OF STOCKTON, CALIFORNIA.

## PATTERN FOR CASTING GEAR-WHEELS.

SPECIFICATION forming part of Letters Patent No. 782,674, dated February 14, 1905.

Application filed May 19, 1904. Serial No. 208,694.

*To all whom it may concern:*

Be it known that I, THEODORE WICK LOWE, a citizen of the United States, and a resident of Stockton, in the county of Joaquin and State of California, have invented a new and Improved Pattern for Casting Gear-Wheels, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved pattern for casting gear-wheels and gear-racks arranged to permit the formation of gear-wheel patterns of any desired diameter, shape of teeth, pitch, &c., to insure casting of properly-meshing gear-wheels in a very simple and economical manner and without the use of the expensive gear-wheel patterns now employed.

The invention consists of novel features and parts and combinations of the same, as will be more fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation showing a flexible strip provided with gear-teeth applied to the wheel-blank. Fig. 2 is an enlarged plan view of the flexible strip and the teeth thereon, and Fig. 3 is a sectional side elevation of the same on the line 3 3 of Fig. 2.

On the face of the strip A, of wood, metal papier-mâché, or other suitable but preferably flexible material, are glued or otherwise secured teeth or cogs B, spaced equidistant apart, according to the pitch of the gear-wheel to be made, and the said strip A, with the teeth or cogs B thereon, is now placed upon and fastened in position on the face of a blank C, shaped to represent the web or body of the gear wheel or rack to be cast.

As illustrated in Fig. 1, the flexible strip A, with the teeth B thereon, is placed upon the peripheral face of a wheel and secured in position on the rim of the wheel by glue or other means to form a complete pattern, which can now be used in a mold for casting gear-wheels therefrom in the usual manner.

The teeth or cogs B are preferably formed by shaping a stick of wood, for instance, to represent in cross-section a desired tooth, and this stick is now cut transversely to form gear-teeth having a length of face corresponding to the width of the desired gear-wheel, the gear-teeth formed being glued or otherwise secured with their bases to the flexible strip A, which is preferably of a width corresponding to the length of face of the tooth.

It is understood that as the strip A is made of a flexible material and since the bend under each tooth is so slight that it is practically a straight line the strip can be readily bent so as to lie smoothly on the peripheral surface of the wheel C, the ends of the strips abutting, as plainly indicated in Fig. 1, and the number of teeth corresponding to the pitch diameter of the gear-wheel.

It is understoood that by the arrangement described patterns for spur-wheels, internal gear-wheels, bevel gear-wheel, and the like can be readily formed in the manner above set forth and at a comparatively small expense.

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

1. A pattern comprising a wheel-blank, a flexible strip applied to the peripheral face of the said wheel-blank, and spaced gear-teeth distinct from the strip and each secured to the outer face of the said strip by separate fastening means.

2. A pattern provided with a strip, and spaced gear-teeth distinct from and individually secured to the face of the strip.

3. A pattern provided with a flexible surface-strip, and spaced gear-teeth distinct from and individually secured to the face of the strip.

4. A pattern, comprising a body-blank, and a strip secured to the blank and having gear-teeth thereon, said teeth being formed of separate pieces of wood secured to the strip.

5. A pattern, comprising a wheel-blank, and

a flexible strip secured to the blank and having gear-teeth thereon, said teeth being formed of separate pieces of wood secured to the strip.

6. A pattern provided with a flexible strip, and gear-teeth formed of separate pieces of wood secured to one face of the strip.

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

THEODORE WICK LOWE.

Witnesses:
JOHN H. DOLAN,
GEORGE JENSEN.