

No. 688,633.

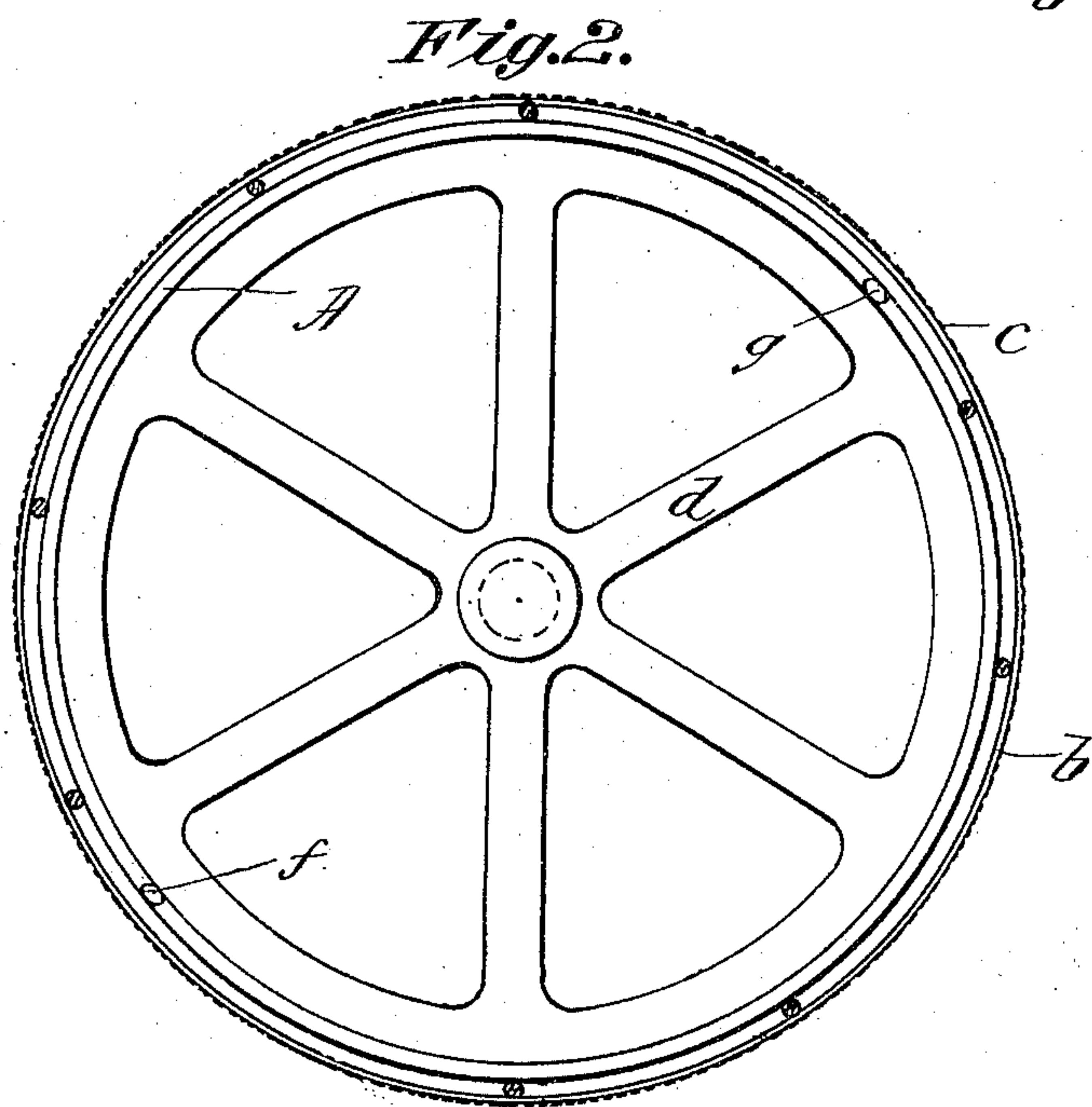
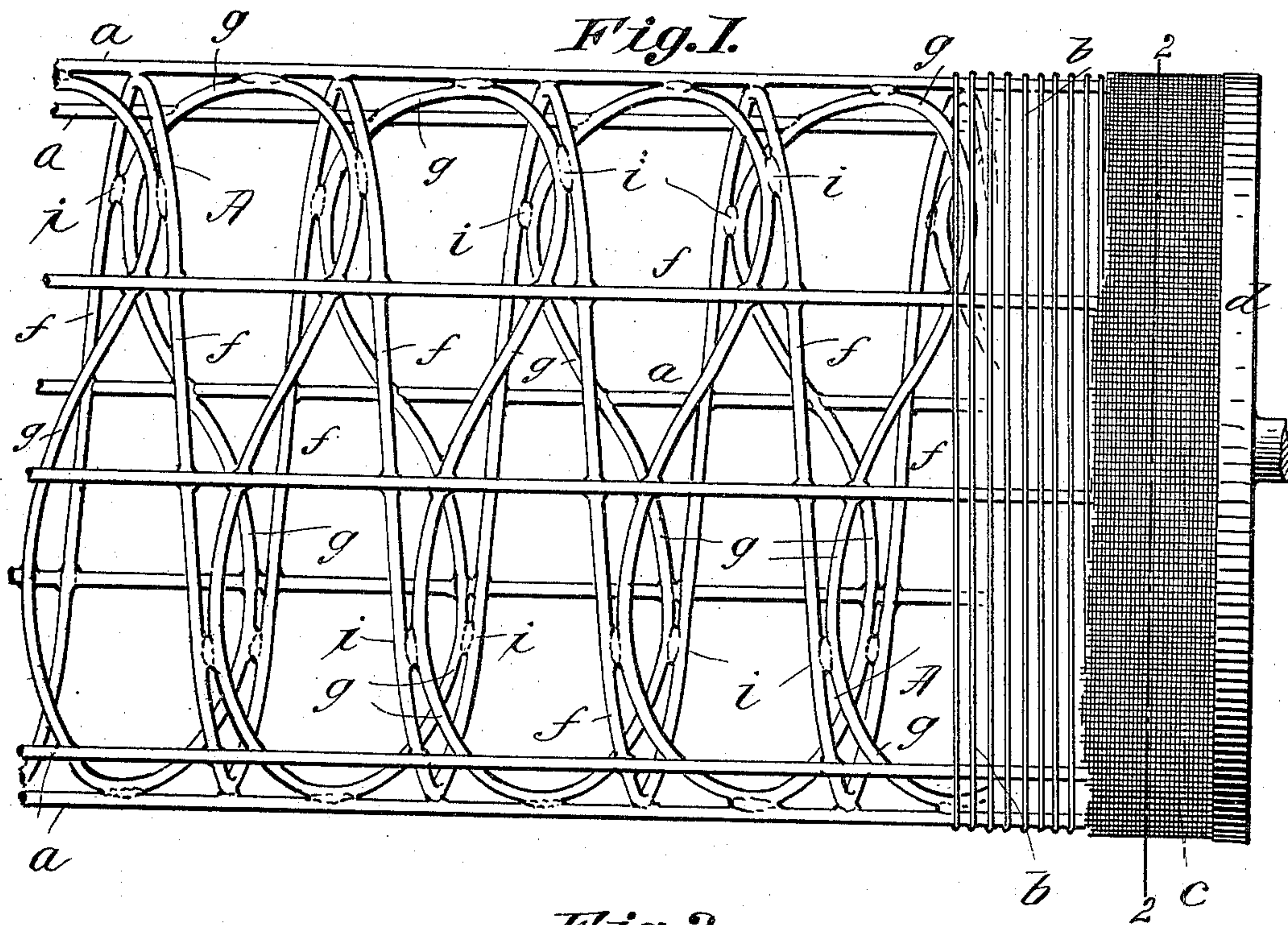
Patented Dec. 10, 1901.

F. W. GOWRIE.

DANDY ROLL.

(Application filed Apr. 15, 1901.)

(No Model.)



Witnesses:
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UNITED STATES PATENT OFFICE.

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DANDY-ROLL.

SPECIFICATION forming part of Letters Patent No. 688,633, dated December 10, 1901.

Application filed April 15, 1901. Serial No. 55,829. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK W. GOWRIE, a citizen of the United States of America, and a resident of Springfield, in the county of Hampden and State of Massachusetts, have invented certain new and useful Improvements in Dandy-Rolls, of which the following is a full, clear, and exact description.

This invention relates to improved dandy-rolls, and more particularly to the construction of the internal open-work cylindrical frame on which are supported the longitudinal rods or wires, the winding-wire, and the outer gauze covering.

It is the object of this invention to devise a novel supporting structure for the outlying portions of the roll which shall be very light, very strong and durable, and of a nature to remain intact and without liability to distortion or rupture after protracted use.

The invention consists in a dandy-roll having the supporting structure thereof composed of the combination of a wire having a helical course with comparatively wide spaces between the helices or convolutions thereof and a second wire which has in a general way a spiral course from end to end of the structure and which is intermediate between the helices of the first-named wire and in the same conformation to the periphery of a cylinder therewith and which is sinuous, whereby the sides thereof alternately have connection, first, with the helix of the first-named wire in advance thereof, and next with the helix of the first-named wire to the rear thereof, and so on repeatedly throughout the shell.

The improved dandy-roll is illustrated in the accompanying drawings, in which—

Figure 1 is a side view of the supporting structure comprising the novelty of this invention and showing at one end portion the dandy-roll as in its completed form. Fig. 2 is a cross-sectional view on line 2 2, Fig. 1.

In the drawings, A represents the structure, which has the conformation of the periphery of a cylinder, which supports the longitudinal wires *a a*, the winding-wires *b b*, and the outer gauze covering *c*, which longitudinal and winding wires and gauze covering, together with the head *d*, are arranged, com-

bined, and connected as usual. The said supporting structure is composed of a regularly-running open helical wire *f* and the irregularly-running wire *g*, which is such a modification of the true helix as may be best perceived and appreciated by an inspection of the drawings, as to have at intervals approaches or contacts, as indicated at *i*, first with the helix in advance thereof and next with the helix of the same wire *f* to the rear thereof, connection being made at the points of approach or contact in any suitable manner, but preferably by soldering. Each portion of the second wire *g* between the points of connection at *i i* with the regularly-running helical wire *f* extend in alternately-reversing substantially oblique directions and constitute braces and stays for the regularly-helical wire, while the latter coöperates with the irregularly-extending wire *g* to stiffen the latter. Both of the wires wound and arranged in connection with each other as described and to conform to a cylindrical surface, as of the log or form on which the roll is made, constitute an adequate and very desirable supporting structure for the further and usual portions or equipments of the dandy-roll.

The regular and irregularly coursing wires *f* and *g* have at the ends of the roll connections or anchorages with the end heads in any suitable manner and, as is common, for the connection of the inner supporting structure of dandy-rolls with the end heads thereof.

I claim as advantages inuring to this roll that it may be more easily and cheaply made than many other dandy-rolls and that the liability of separation at the connections *i i* and of the distortion of the roll are well provided against.

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

1. A supporting structure for a dandy-roll, consisting of a wire having a helical course with comparatively wide spaces between the convolutions, and a second wire which has a sinuous course from end to end of the structure, and which is arranged intermediate between the helices of the first wire, and in the same conformation to the periphery of a cylinder therewith, and having portions thereof

alternately in connection first with the helix in advance and next with the helix to the rear thereof, together with the winding-wire and outer gauze covering, substantially as described. 5

2. In a dandy-roll, the combination of two wires, one having a regular helical course and the other a sinuous course whereby it alternately comes in conjunction with the helices 10 of the first wire, first in advance, and next to the rear of said sinuous wire, both said

wires conforming to the periphery of a cylinder, end heads, longitudinal wires, the winding-wire and the outer gauze covering, all substantially as described. 15

Signed by me at Springfield, Massachusetts, this 10th day of April, 1901.

FREDERICK W. GOWRIE.

Witnesses:

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