

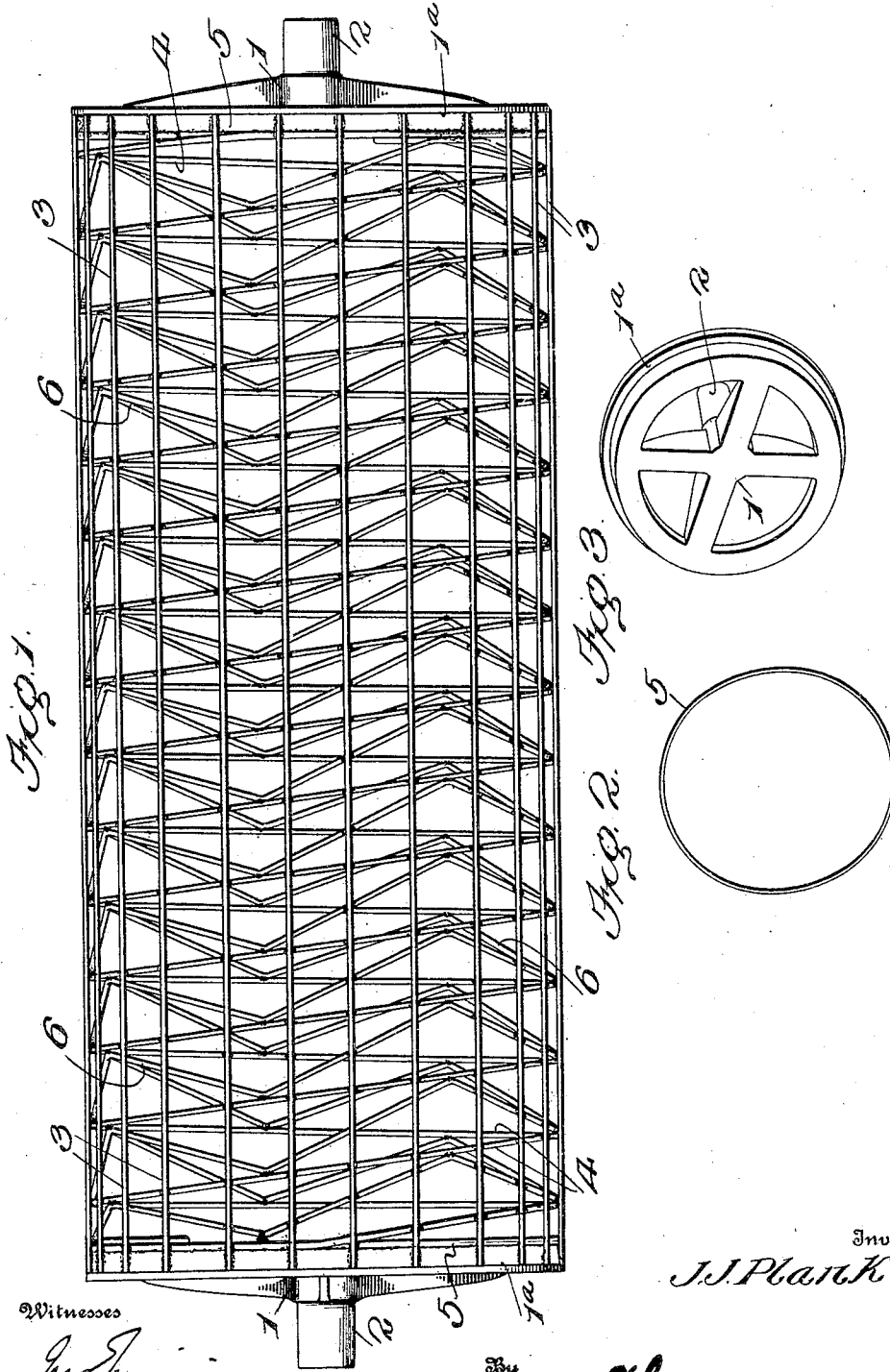
J. J. PLANK.
DANDY ROLL.

APPLICATION FILED JAN. 28, 1909.

Patented Oct. 4, 1910.

2 SHEETS—SHEET 1.

971,787.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 5.

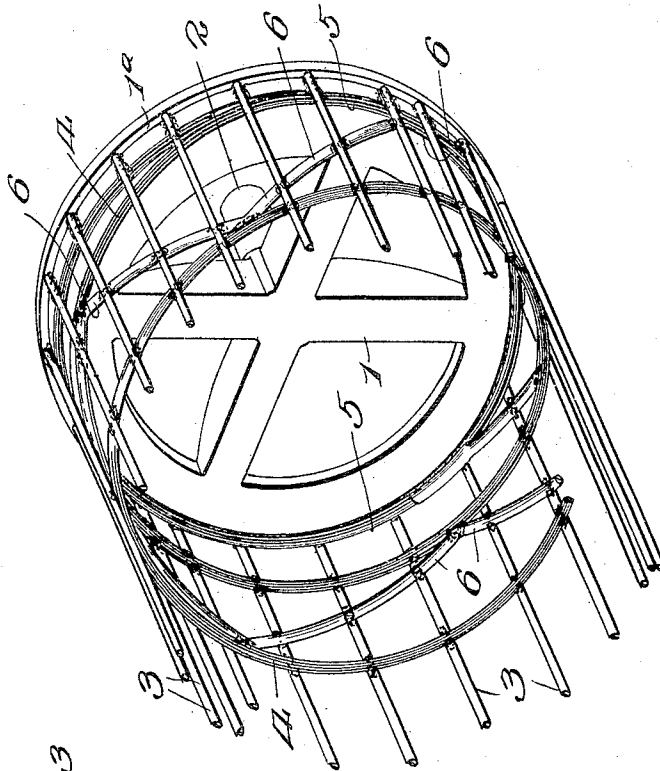


Fig. 4.

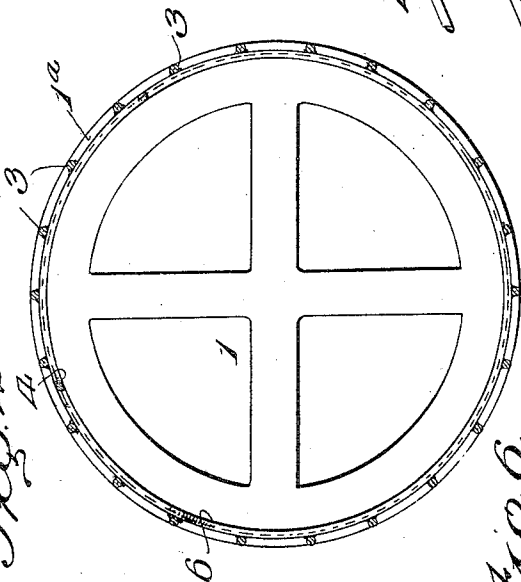
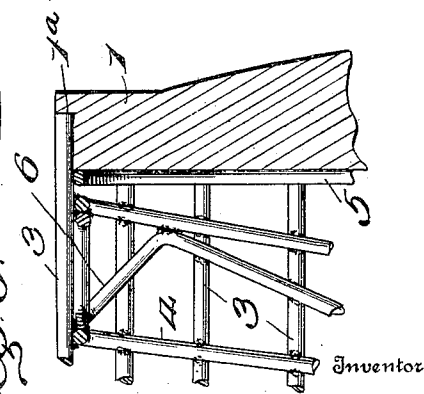


Fig. 6.



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UNITED STATES PATENT OFFICE.

JOSEPH J. PLANK, OF APPLETON, WISCONSIN.

DANDY-ROLL.

971,787.

Specification of Letters Patent.

Patented Oct. 4, 1910.

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To all whom it may concern:

Be it known that I, JOSEPH J. PLANK, citizen of the United States, residing at Appleton, in the county of Outagamie and State of Wisconsin, have invented certain new and useful Improvements in Dandy-Rolls, of which the following is a specification.

The present invention relates in general to improvements in paper making machinery, and more particularly to a novel dandy roll which is peculiarly designed and constructed so as to obtain an absolutely rigid construction.

The invention further contemplates a dandy roll which is inexpensive in its construction, which can be formed of comparatively light wire, and in which the heads are securely connected to the sieve or network portion so that they will not break away therefrom while the machine is in operation.

For a full understanding of the invention reference is to be had to the following description and accompanying drawings in which:—

Figure 1 is a side elevation of a dandy roll constructed in accordance with the invention. Fig. 2 is a detached perspective view of one of the rings which are applied to the head of the roll. Fig. 3 is a similar view of one of the heads. Fig. 4 is a transverse sectional view through the roll. Fig. 5 is a perspective view of one end of the roll looking at it from the inside, the remainder of the roll being broken away, and Fig. 6 is a longitudinal sectional view through one of the corners of the roll.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Referring specifically to the embodiment of the invention shown on the drawings, the numerals 1 designate the two heads of the roll, the said heads having a circular formation and being provided with the usual trunnions 2. The inner edge of each of the heads is rabbeted at 1^a, and the two heads are connected by a series of spaced longitudinal wires 3, the extremities of which are received within the rabbeted edges 1^a of the heads and soldered or otherwise rigidly connected thereto. In the preferred con-

struction these longitudinal wires 3 are parallel to each other and are uniformly spaced at frequent intervals around the entire circumference of the roll.

Arranged within the longitudinal wires 3 is a spiral reinforcing wire 4 the ends of which are coiled to provide rings 5 which are integrally formed with the wire 4 and which are soldered or otherwise rigidly connected to the heads 1. The various convolutions of the spiral reinforcing wire 4 are preferably uniformly spaced throughout the entire length of the roll in close relation and are arranged transversely with respect to the longitudinal wires 3 to which they are soldered or otherwise rigidly connected at their points of contact therewith. Owing to the fact that both the longitudinal wires 3 and the rings 5 are rigidly secured to the heads 1, it will be obvious that a secure connection will be obtained between the heads and the wires so that there will be no danger of the former working loose and falling out of position when the roll is in operation.

A second reinforcing wire 6 is coiled around the interior of the longitudinal wires 3 between the various convolutions of the spiral reinforcing wire 4 and is bent angularly into zigzag form. The extremities of the second reinforcing wire 6 are also secured to the rings 5 and the said second reinforcing wire zigzags back and forth between the various convolutions of the spiral reinforcing wire so as to operate in conjunction therewith to form a net-work of triangular trusses to rigidly support the longitudinal wires 3 and the spiral wire 4. As shown on the drawings, eight points of contact or apexes of these triangular trusses are formed for every convolution of the second reinforcing or spiral wire 6, the apexes of four of the triangular trusses facing in one direction while the apexes of the remaining triangular figures face in the opposite direction. These various triangular trusses operate to obtain an absolutely rigid construction and enable the sieve portion of the roll to be constructed of comparatively light material.

Having thus described the invention what is claimed as new is:—

A dandy roll including a pair of spaced heads, annular shoulders formed in the peripheries of said heads, longitudinal wires

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disposed across said heads and terminated
upon said shoulders, a spiral wire disposed
between said heads and against the inner
faces of said longitudinal wires, rings in-
tegrally formed upon the opposite ends of
said spiral wire for engagement against said
heads to be secured thereto, and a zigzag
wire disposed between the convolutions of

said spiral wire and secured thereto at the
points of contact between the same. 10

In testimony whereof I affix my signature
in presence of two witnesses.

JOSEPH J. PLANK. [L. S.]

Witnesses:

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