Jan. 25, 1944. J. A. HOOVER 2,340,269

SHEAVE DEVICE FOR DRAPING FOURDRINIER WIRE

Filed May 30, 1942

Fig. 1.

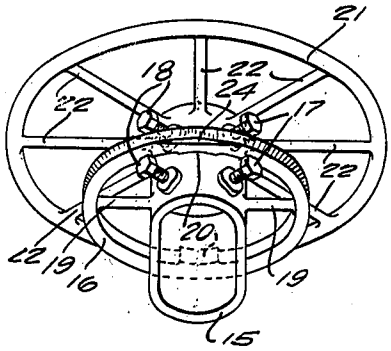
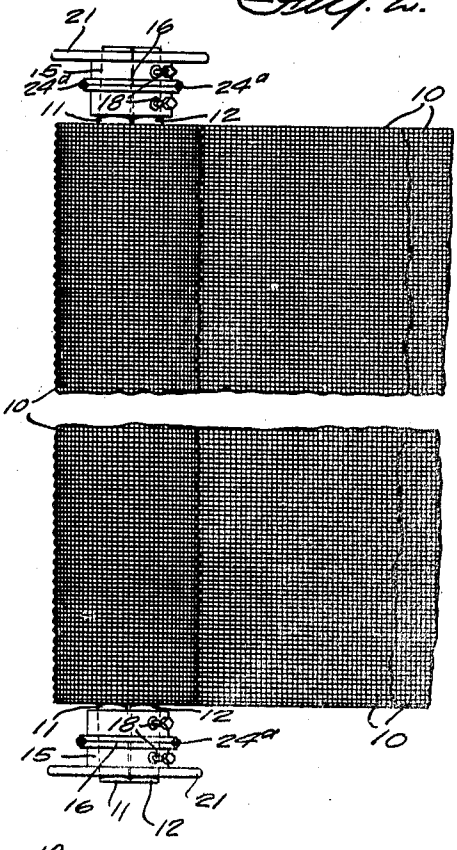


Fig. 2.



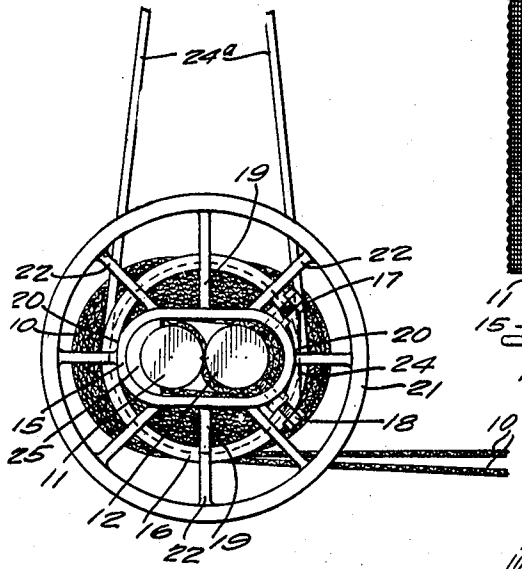


Fig. 3.

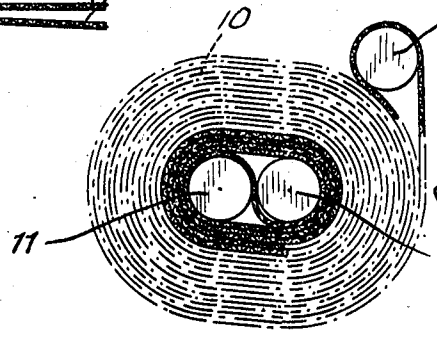


Fig. 4.

INVENTOR
JOHN A. HOOVER
BY
ATTORNEY

Patented Jan. 25, 1944 2,340,269

UNITED STATES PATENT OFFICE

2,340,269

SHEAVE DEVICE FOR DRAPING FOURDRINIER WIRE

John A. Hoover, North Charleston, S. C., assignor to West Virginia Pulp and Paper Company, New York, N. Y., a corporation of Delaware

Application May 30, 1942, Serial No. 445,236

1 Claim. (Cl. 242—85)

My present invention relates to an improved pulley or sheave device for use in draping the Fourdrinier wire in place on the machine during the operation of changing the wire. A common way of carrying out the operation of putting on a new wire is to pass one loop of the wire over an end of the couch roll (in machines which permit of this) whereupon the wire, which comes reeled, must be unwound. The Fourdrinier wires are commonly received wound upon a pair of poles constituting a core. Heretofore it has been common practice to suspend the reel of wire above the machine by means of slings which engage the projecting ends of these poles. However, this practice is subject to the drawback that on occasion the poles will slip out of the slings, to the damage of the wire and possible injury to the operator.

My present invention seeks to overcome this difficulty by providing a novel form of pulley or sheave device one of which may be clamped to each end of the poles of the wire, the aggregate being suspended on a cable attached to a crane, while a hand wheel or other device is provided by means of which the operator may rotate the rolls and thus pay out the wire along the bed of the machine.

My invention will be best understood by reference to the following detailed description taken with the annexed drawing, in which

Fig. 1 is a perspective view of my improved sheave device;

Fig. 2 is a plan view showing the same in use;

Fig. 3 is an end view; while

Fig. 4 shows diagrammatically the manner in which the Fourdrinier wire is wound when received by the paper mill.

Referring to the above, 10 denotes a Fourdrinier wire which is endless and is therefore reeled doubled as shown. The core of the reel is formed by a pole 11 which is contained within the inner loop of the wire, whereas pole 12 is disposed immediately outside of the loop, the two poles thus constituting a core around which the double thickness of the wire is reeled. Pole 13 is also used in the remote end loop of the wire and is not concerned in the present invention. The reeled wire having been removed from its container, the ends of poles 11 and 12 are engaged by the combination clamp and sheave device which is the subject of the present invention, one of such devices being required for each end of the pair of poles. Said device comprises a housing 15 accommodating the ends of poles 11 and 12 and provided with two pairs of oppositely disposed set screws 17, 17, 18, 18 for holding said poles in place. Concentrically disposed with respect to the housing 15 is a sheave 16 which is attached to the housing by means of spokes 19, 19, and also by being welded thereto as at oppositely disposed regions 20, 20. Also concentric with housing 15 is preferably a hand wheel 21 secured to said housing by means of spokes 22. One wall of the sheave may be cut away as at 24 to facilitate threading the cable 24a on and off of the sheave.

The sheave devices having been clamped to either end of the pole assembly, as shown in Figs. 2 and 3, the assembly is suspended from a crane, not shown, by means of cables of which one, 24a, is seen. After the free loop of the Fourdrinier wire has been disposed over the couch roll, for example, as already described, the operators on either side of the assembly pay out the wire by rotating the wheel 21 until the wire has been entirely unwound (the crane—not shown—moving toward the head box during this operation), whereupon the installation of the wire is completed in known manner. To accommodate poles of varying size a fillet piece 25 may be placed between one of the poles and the end surface of the housing 15.

I claim:

A pulley or sheave device for facilitating change of wire on a Fourdrinier machine, comprising a sheave proper adapted to receive a supporting cable, a device attached thereto for manually rotating the sheave, and a housing concentric with said sheave accommodating the ends of a pair of superimposed poles upon which the wire is reeled, and means for securing said pole ends within said housing.

JOHN A. HOOVER.