Feb. 21, 1933. M. WENZEL 1,898,413

WINDING BAND TO BE WOUND ON ROLLS USED IN THE PAPER MAKING AND ALLIED TRADES

Filed Feb. 25, 1930

Fig. 1

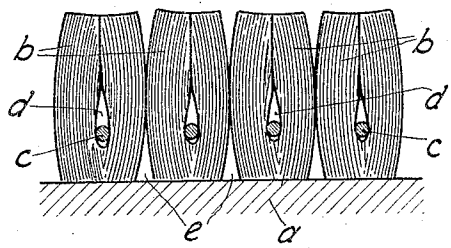


Fig. 2

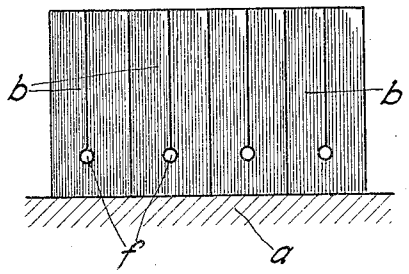
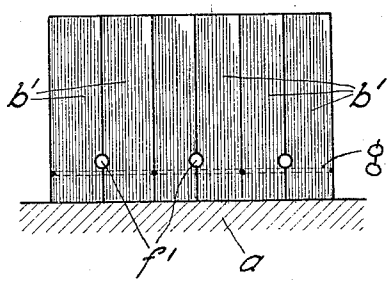


Fig. 3



Inventor
Max Wenzel,
By Henry Orth Jr
Atty.

Patented Feb. 21, 1933 1,898,413

UNITED STATES PATENT OFFICE

MAX WENZEL, OF NEIDHARDTSTAL, GERMANY

WINDING BAND TO BE WOUND ON ROLLS USED IN THE PAPER MAKING AND ALLIED TRADES

Application filed February 25, 1930, Serial No. 431,231, and in Germany March 1, 1929.

The invention relates to a winding band to be wound on rolls (pressing, couch, damping, calender, impression and the like rolls) used in the paper making and allied trades, which serves the purpose to obviate the deficiencies of the winding bands used up to the present time.

In coating rolls of the type mentioned it has been customary up to now to introduce the winding thread or cord into the slotted winding band without any additional arrangements. In consequence, the winding band will be bulged out by the winding cord and the finished coating will present gaps, soft and hard spots, unevenness of the surface and similar deficiencies, in short such roll will be of inferior quality.

An embodiment of the arrangement according to the invention is shown in the drawing by way of example, in which

Figure 1 represents a winding band of the type formerly used, in vertical section.

Figure 2 shows a winding band according to the present invention in cross-section, and

Figure 3 illustrates another embodiment of a winding band according to the invention in cross-section.

When applying the former type of winding band as such is represented in Figure 1, the said winding band *b* is wound together with the inserted winding thread or cord *c* in the form of a helix around the body of the roll. This procedure will cause the gaps *d* above and beneath the winding cord *c* in the slot of the winding band *b*, as clearly follows from Figure 1. In addition there will be produced the inner and outer gaps *e* between the adjacent turns of the winding band. Besides the drawbacks to be noted at once from Figure 1 the wedge-like position of the winding cord *c* must be emphasized in particular, in consequence of which the winding cord *c* will gradually become deeper embedded in the material of said winding band, which again will cause the coating or wrapping of the roll to get slack inevitably.

In the winding band according to the invention, as shown in Figure 2, the said band *b* is provided at the spot where the winding cord *c* is to rest, with a cavity *f* extending over the entire length of said winding band, the cross-sectional area of which cavity corresponds about to the size of the winding cord inserted, so that the said cavity is again filled up by the winding cord *c* introduced therein.

In this embodiment the winding band is slotted for the purpose of introducing the winding cord.

In the embodiment according to Figure 3 the seat of the winding cord is not obtained by slotting the winding band, as shown in Figure 2, but by attaching two or more winding bands *b'*, which are provided with recesses *f'* on the surfaces facing one another. The single winding bands *b'* are secured to each other by means of threads *g* or in any other suitable manner.

The arrangement of the winding bands according to the present invention ensures a safe embedding of the winding cord and in consequence a tight, uniformly strong and smooth coating of the roll.

From this results the further advantage that thicker winding cords can be employed than was possible up to now, since the winding cord will be offered sufficient space in the cavities *f* or *f'* respectively so that no bulging out will occur at the slotted joints. For that reason the life of the coating thus produced and its capacity of resistance will be substantially increased.

The winding band can be used, for instance, for coating the rolls used in the printing and wall-paper industries, which were covered up to the present time with India rubber, felt or the like.

I claim:

1. Winding band of the character described comprising in combination a band-body, winding means, a slot provided in said body and extending over the whole length thereof and a cavity arranged at the bottom of said slot, adapted to receive said winding means.

2. Winding band of the character described comprising in combination a band-body composed of two individual members, winding means, recesses arranged in the lateral surfaces of said members facing one another and

adapted to receive said winding means and means for securing said members together.

3. Winding band of the character described comprising in combination a band-body composed of a plurality of individual members, winding means, recesses arranged in the lateral surfaces of said members facing one another and adapted to receive said winding means and means for securing said members together.

4. A winding band of the character described, said band being rectangular shaped in vertical transverse cross section, said band having a slit extending transversely therethrough towards an opposite side thereof, said slit terminating in a flexible securing member receiving aperture preformed therein and a flexible securing member in said aperture entirely filling the same whereby said band, after insertion of the securing member, retains its rectangular shape without distortion of any part thereof.

5. A winding band of the character described comprising a member rectangularly shaped in vertical transverse cross section and having a slit extending inwardly from one side thereof and terminating in a pre-formed aperture for the reception of a securing member, a securing member in said aperture, said pre-formed aperture forming means whereby when the securing member is received therein through the slot, said member will retain its angular shape in cross section without distortion incident to the engagement of the walls of the aperture with the securing member.

6. A winding band of the character described comprising a band body having adjacent limbs, a slit extending between said adjacent limbs, said slit having an enlargement forming a cavity throughout the length of the said body for the reception of a winding cord, whereby the adjacent limbs of the body contact each other on their entire abutting surfaces.

In testimony whereof I have signed my name to this specification.

MAX WENZEL.