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CORE PLUG

Filed Aug. 7, 1931

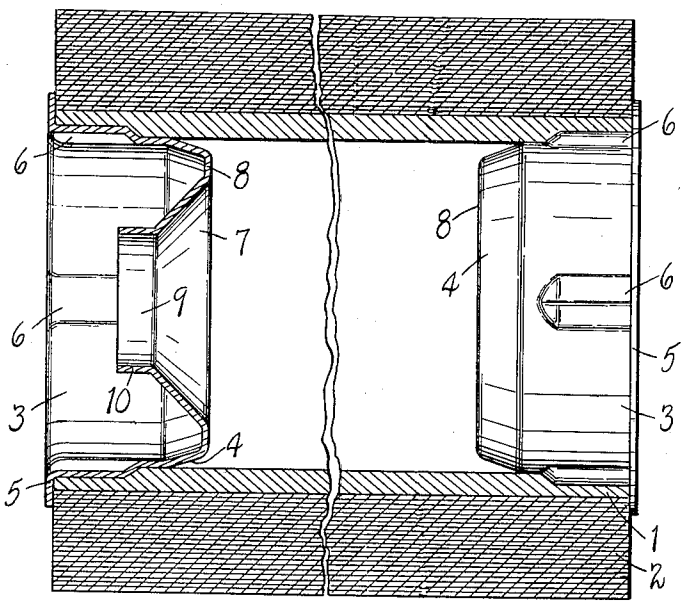

Fig. 1

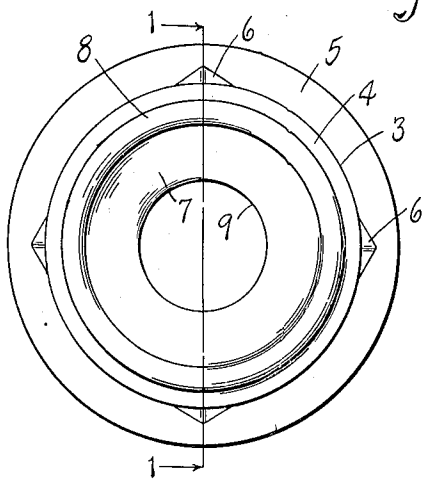

Fig. 2

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CORE PLUG

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The main object of this invention is to provide a core plug for paper rolls which is strong and rigid and adapted to a considerable range or variation in diameter of cores, and one which is very securely engaged and retained in the core even when the roll is subjected to severe usage or handling.

Objects pertaining to details and economies of our invention will definitely appear from the description to follow. The invention is defined in the claims.

A structure which embodies the features of our invention is clearly illustrated in the accompanying drawing, in which:

Fig. 1 is a fragmentary longitudinal section of a roll of paper embodying our invention or equipped with our core plugs on a line corresponding to line 1—1 of Fig. 2, one of the core plugs being shown in full lines.

Fig. 2 is an inner end elevation of our improved core plug.

In the accompanying drawing 1 represents a tubular core and 2 the roll of paper wound thereon. Our improved core plug comprises a cylindrical rim portion 3 of considerable width having an inwardly tapered portion 4 at its inner end and an outturned flange 5 at its outer end. The cylindrical portion of the core has longitudinal ribs 6 struck out therefrom. These ribs, however, terminate in spaced relation to the inner edge of the cylindrical portion as clearly shown in Fig. 1.

These rib portions serve a double function; that of embedding more or less in the core and preventing rotative movement of the core plug therein, and also making it possible to use the core plugs in cores varying considerably in diameter, that is, the ribs embed themselves more or less depending on the internal diameter of the core and effectively hold the plug against rotative movement even where the cylindrical portion of the core plug is not a close fit within the core.

The core is provided with a conical or outwardly flaring web portion 7 joined to the inner end of the portion 4 by a flat web portion 8. The web has a central opening 9 provided with a flange 10 which constitutes a spindle hub lying within the cylindrical rim portion. The core is formed of a single piece of sheet metal and by thus shaping the web and supporting the hub portion, the core is not likely to be distorted in slipping upon a spindle or by the use of a spindle or rod engaged within a core plug as a means for lifting or prying the roll about.

Our improved core plugs are economical to produce, very strong in proportion to the weight of material used, and, as stated, adaptable to cores of considerable variation in diameter.

Having thus described our invention what we claim as new and desire to secure by Letters Patent is:

1. A core plug for paper rolls formed as an integral sheet metal stamping and comprising a cylindrical core-engaging rim terminating in an outwardly projecting flange at its outer end and an inwardly tapered portion at its inner end and having a plurality of longitudinal core engaging ribs struck outwardly therefrom, and an inwardly flaring web joined to the tapered portion of the rim by a relatively flat narrow portion and having a central spindle opening provided with a flange-like hub lying within the said cylindrical portion.

2. A core plug for paper rolls formed as an integral sheet metal stamping and comprising a cylindrical core-engaging rim terminating in an outwardly projecting flange at its outer end and an inwardly tapered portion at its inner end, and an inwardly flaring web joined to the tapered portion of the rim by a relatively flat narrow portion and having a central spindle opening provided with a flange-like hub lying within the said cylindrical portion.

3. A core plug for paper rolls formed as an integral sheet metal stamping and comprising a cylindrical core-engaging rim terminating in an outwardly projecting flange at its outer end and having a plurality of longitudinal core engaging tapered ribs struck outwardly therefrom, and a web joined to the inner end of the rim and hav-

ing a central spindle opening provided with a flange-like hub lying within the said cylindrical portion.

4. A core plug for paper rolls comprising a cylindrical core-engaging rim terminating in an outwardly projecting flange at its outer end and having a plurality of longitudinal core engaging tapered ribs struck outwardly therefrom, and a web joined to the inner end of the rim and having a central spindle opening.

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