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ROLL PAPER CORE.

APPLICATION FILED JAN. 24, 1913.

1,098,479. **Patented June 2, 1914.**

Fig. 1

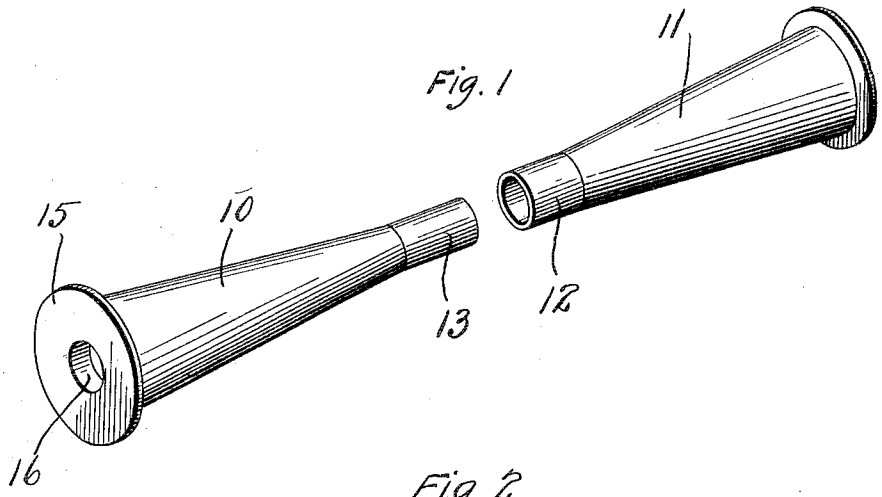
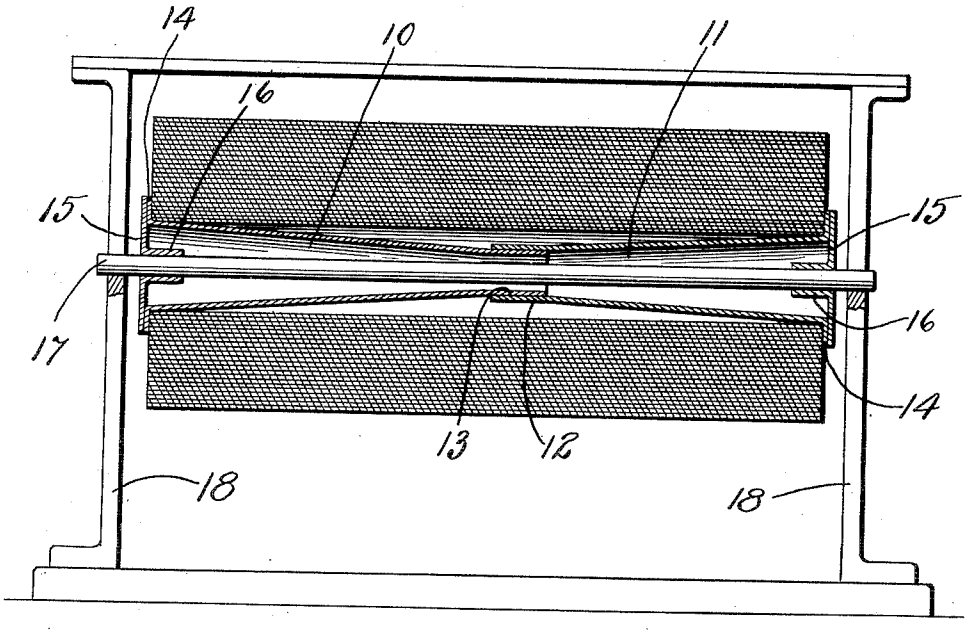


Fig. 2



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UNITED STATES PATENT OFFICE.

FRANCIS X. CLARK, JR., AND FRANCIS X. CLARK, SR., OF ST. LOUIS, MISSOURI.

ROLL-PAPER CORE.

1,098,479. Specification of Letters Patent. **Patented June 2, 1914.**

Application filed January 24, 1913. Serial No. 743,995.

To all whom it may concern:

Be it known that we, FRANCIS X. CLARK, Jr., and FRANCIS X. CLARK, Sr., citizens of the United States, residing at the city of St. Louis, State of Missouri, have invented a certain new and useful Improvement in Roll-Paper Cores, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a perspective view of a roll paper core of our improved construction. Fig. 2 is a sectional view of a roll of paper in position on a fixture and which roll of paper is equipped with our improved core.

Our invention relates to a new and useful core for roll paper such as is used for wrapping purposes and in printing presses of the rotary web type, the principal object of our invention being to provide a comparatively simple inexpensive core which may be readily placed in position in the opening through the center of a roll of paper, and which core supports the roll without binding effect on the innermost layers of the roll of paper and permits all of the paper to be unwound while in comparatively smooth condition.

A further object of our invention is to provide a roll paper core comprising a pair of elongated tubular members which gradually taper toward their inner or meeting ends, and by thus gradually tapering the members forming the core, the same can be readily used with rolls of paper which vary in width.

It is the present practice to drive tapered wooden plugs into the ends of the opening through the center of a roll of paper, which plugs form bearings for the spindle used in supporting the roll in its fixture and these wooden plugs when placed in position exert a wedging effect on the innermost layers or windings of the roll of paper, and in some instances the ends of the innermost layers or windings are crushed or torn so that the inner end of the roll is unfit for use.

We propose to overcome the objections just noted by providing a core formed of two elongated tubular members of sheet metal which, when in use, support the innermost layers of the roll of paper in such a manner that the entire roll can be readily unwound and used for wrapping purposes.

To the above purposes our invention consists in certain novel features of construction and arrangement of parts hereinafter more fully described and claimed.

As shown in the accompanying drawing our improved core consists of a pair of tubular members 10 and 11 preferably formed of sheet metal and tapering gradually from their outer toward their inner ends. The inner end of the member 11 is provided with a tubular socket 12, which is adapted to receive the straight tubular inner end 13 of the member 10 when the parts are properly assembled in a roll of paper. The outer ends of the members 10 and 11 are flanged outwardly as designated by 14, and fixed to said flanged outer ends in any suitable manner are disks 15 with which are formed integral inwardly projecting collars 16. These collars form bearings for the usual spindle 17 which extends through the core and the ends of which bear in the brackets or fixture 18 which supports the roll on a shelf or counter.

The use of our improved core is apparent and to position the same in a roll of paper it is only necessary to insert the members 10 and 11 in the ends of the opening through the roll and manipulate said members so that the tubular end 13 is seated in the bearing 12. The spindle 17 is now positioned in the collars 16 at the ends of the members 10 and 11 and the roll is now ready to be mounted in its supporting fixture. The taper of the members 10 and 11 is very slight so there is little or no wedging action of said members against the innermost layers of the roll of paper when the core is positioned therein.

By gradually tapering the members 10 and 11 toward their inner or meeting ends it is possible to utilize one of the cores in connection with rolls of paper which vary in width, it being understood, of course, that when the core is positioned in a roll of paper which is comparatively narrow in width the end portions of the members 10 and 11 will project slightly beyond the ends of the roll.

A core of our improved construction is comparatively simple, can be cheaply pro-

duced, is readily positioned in the roll of paper and supports the same, in a substantial manner on the spindle of the fixture. We have shown and described our improved core as used in connection with a roll of wrapping paper, but it will be readily understood that the core can be made of considerable length and of heavy material so as to be positioned in the large rolls of paper used in printing presses of the rotary web type.

It will be readily understood that minor changes in the size, form and construction of the various parts of our improved core can be made and substituted for those herein shown and described without departing from the spirit of our invention, the scope of which is set forth in the appended claims.

We claim:

1. A roll paper core comprising a pair of tapered cylindrical members, the inner ends of which are adapted to engage each other when the core is positioned for use in a roll of paper.

2. A roll paper core comprising a pair of tapered cylindrical members, the inner ends of which are adapted to engage each other when the core is positioned for use in a roll of paper, and bearings formed in the outer ends of said members, which bearings are adapted to receive a supporting spindle.

3. A roll paper core comprising a pair of tapered cylindrical members, the inner ends of which are adapted to engage each other when the core is positioned for use in a roll of paper, flanges on the outer ends of said members, and bearings formed in the outer ends of said members, which bearings are adapted to receive a supporting spindle.

4. A roll paper core comprising a pair of tapered tubular members provided with bearings at their outer ends, and with straight tubular portions on their inner ends, one of which tubular portions telescopes the other when the core is positioned in a roll of paper.

5. A roll paper core comprising a pair of tapered cylindrical members provided at their inner ends with straight tubular sockets, the socket at the inner end of one of which members is adapted to telescope the socket end of the opposite member when said members are positioned in a roll of paper.

6. A roll paper core comprising a pair of tapered cylindrical members, the inner end of one of which members is adapted to telescope the inner end of the opposite member when said members are positioned in a roll of paper, and bearings formed in the outer ends of said members, which bearings are adapted to receive a supporting spindle.

7. A roll paper core comprising a pair of tubular members which gradually taper from their outer toward their inner ends, the inner end of one of said members being adapted to telescope the inner end of the opposite member when said members are positioned in a roll of paper, and flanges on the outer ends of said tubular members.

8. A roll paper core comprising a pair of tubular members which gradually taper from their outer toward their inner ends, the inner end of one of said members being adapted to telescope the inner end of the opposite member when said members are positioned in a roll of paper, and bearings formed in the outer ends of said tubular members.

In testimony whereof we hereunto affix our signatures in the presence of two witnesses, this 21st day of January, 1913.

FRANCIS X. CLARK, JR.
FRANCIS X. CLARK, SR.

Witnesses:
M. P. SMITH,
M. A. HANDEL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."