March 3, 1936. A. S. SCHENKER 2,032,440

PAPER ROLL HOLDING DEVICE

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Fig. 1

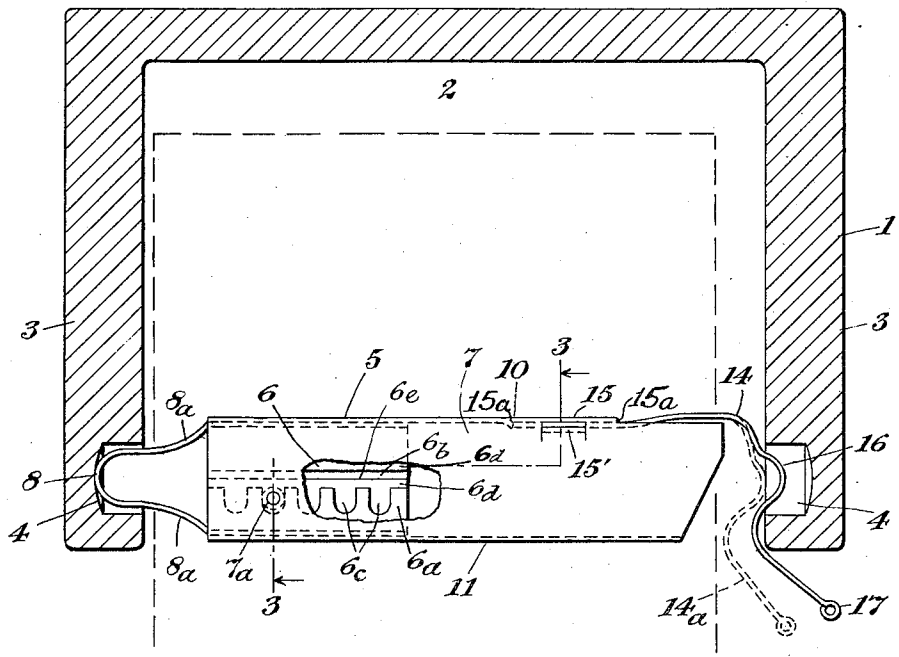


Fig. 3

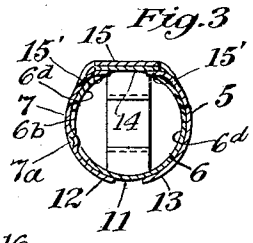


Fig. 4

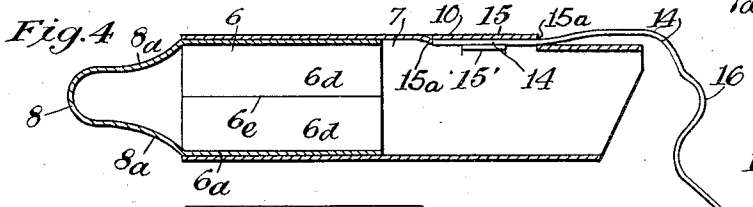


Fig. 2

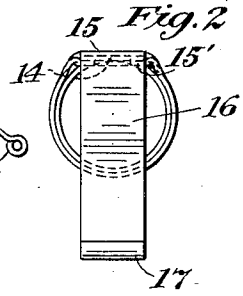
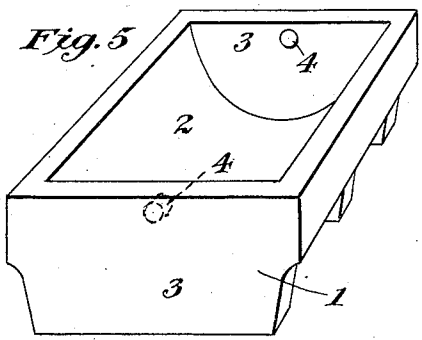


Fig. 5



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Fig. 6

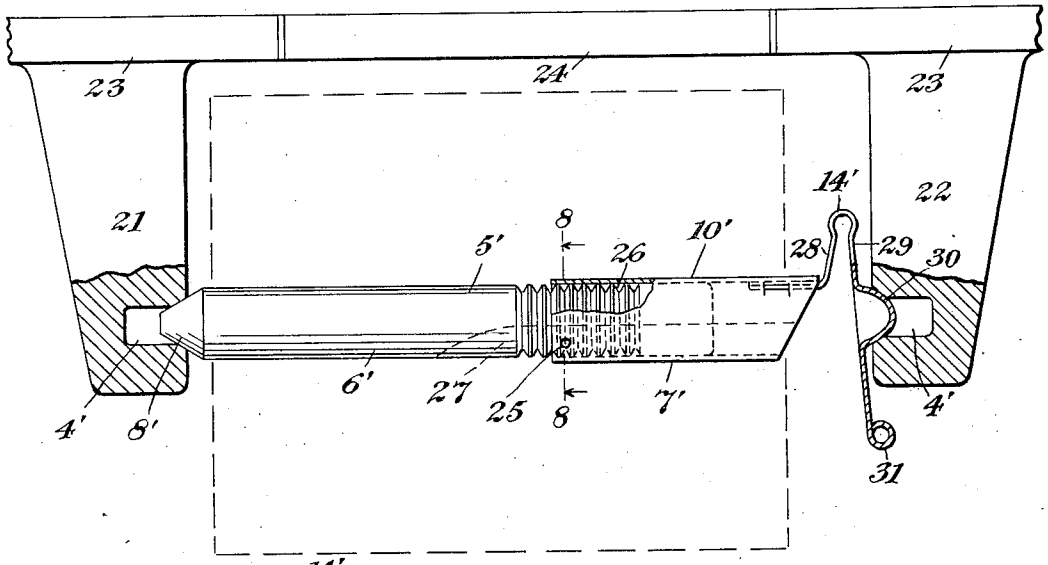


Fig. 9

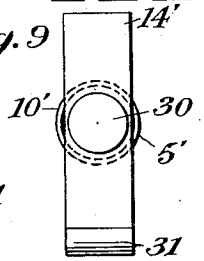


Fig. 7

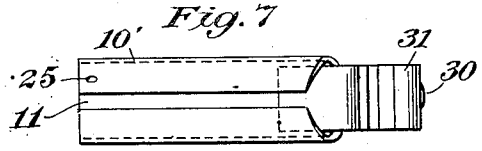


Fig. 11

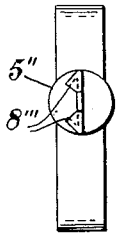


Fig. 10

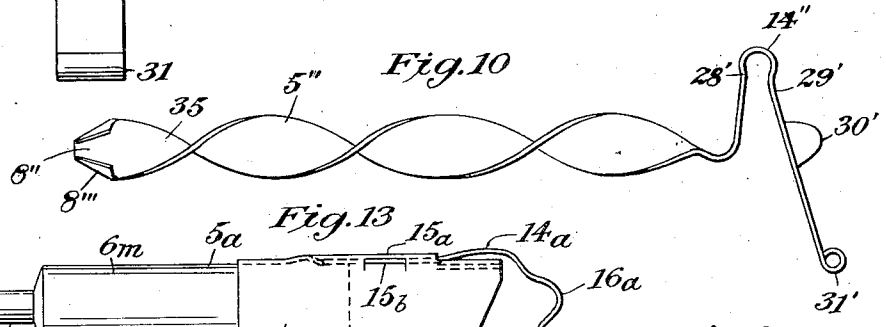


Fig. 13

Fig. 8



Fig. 12

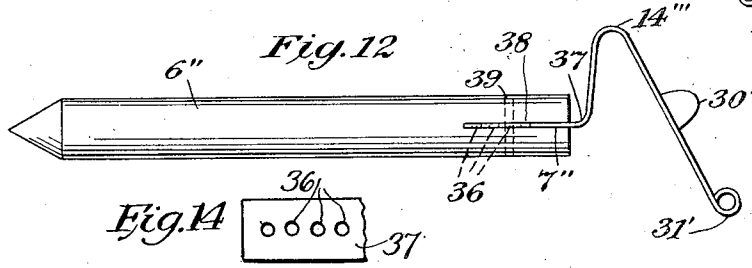


Fig. 14

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PAPER ROLL HOLDING DEVICE

Abraham S. Schenker, Brooklyn, N. Y.

Application April 26, 1934, Serial No. 722,428

5 Claims. (Cl. 242—55.2)

This invention relates to paper roll holding devices and particularly to such devices for holding toilet paper rolls for use in tiled bath and toilet rooms. The devices for holding toilet paper rolls in tiled bath and toilet rooms as commonly arranged include a pair of spaced pivot sockets or elements each in portion of a tile cavity or in a projecting part of a tile, which tile is cemented into and forms part of the room wall. Thus the pivotal sockets or holding elements are essentially fixed and in spaced relation to each other. The paper roll is ordinarily held on a spindle passed through the roll and held by means of the sockets or pivotal elements.

The main object of the present invention is to provide an improved spindle for the above purpose and which is more readily inserted and held between the fixed supports together with the roll of toilet paper, and also more readily removed when desired, than those now in use.

The invention includes an improved manual device for the purpose of engaging and disengaging the spindle from the supports, and also includes a means to conveniently bring the spindle to a length to fit the distance between the fixed supports.

In the drawings of the invention accompanying and forming part of this specification,—

Figure 1 is a plan partly in section of one form of my invention.

Fig. 2 is an end elevation of the spindle and spring.

Fig. 3 is a transverse section of the spindle taken on the line 3—3 of Fig. 1.

Fig. 4 is a longitudinal section of the spindle.

Fig. 5 is a perspective view of the hollow tile 1.

Fig. 6 is a plan of another form of the invention, part of the spindle being shown broken away.

Fig. 7 is a side elevation of part of the spindle.

Fig. 8 is a transverse section of the spindle taken on the line 8—8 of Fig. 6.

Fig. 9 is an end elevation of the spindle looking from the right in Fig. 6.

Fig. 10 is a plan of another form of my invention.

Fig. 11 is an end elevation of the same as seen from the left in Fig. 10.

Fig. 12 is a plan of still another form.

Fig. 13 is a plan of another modification, and

Fig. 14 is a detail plan of the left hand portion of the part 37.

Referring to Figs. 1 and 5 of the drawings, the numeral 1 refers to the member illustrated in Fig. 5 and which is made in the form of a hollow tile having a cylindrical cavity 2, end walls 3, and sockets 4 in said end walls. The numeral 5 indicates the roll holding spindle which is preferably formed in two parts 6 and 7, the part 6 being provided with a pivotal portion or element 8 which is adapted to engage in the socket 4 of the left hand end wall 3. The part 6 has a tubular portion 6*a*, having a longitudinal slot 6*b* and a series of notches 6*c* along one edge of the slot. The pivotal portion 8 is connected to the part 6*a* by branches 8*a* and the tubular portion 6*a* may if desired be in two parts such as 6*d* abutting together on the side opposite the slot 6*b* along the edges 6*e*.

The part 7 has a tubular portion 10 into which the part 6 extends and is held therein by the resilience of the part 7 as well as its own resilience. There is a slot 11 in the part 7 and the bore of the same being slightly less in diameter than the outside diameter of the part 6, there is sufficient resilience in the said parts to hold them in their normal position.

The part 7 is provided with an inward projection 7*a* which cooperates with the notches 6*c* in positioning the two parts 6 and 7. The said projection 7*a* is movable lengthwise along the slot 6*b* by first turning the parts 6 and 7 relatively to each other to disengage the projection 7*a* from the notches 6*c*. On attaining the desired length of spindle the parts 6 and 7 are again turned relatively to each other so that the projection 7*a* again engages one of the notches 6*c*.

There is a resilient member 14 secured to the right hand end of the tubular portion 10, which can be secured to said portion in any suitable manner but preferably by forming a flattened part 15 at the end part, apertures 15*a* and ears 15′ on each side of the part 15, which ears are forced against the end or juncture portion of the part 14 and thus clamp it firmly in position.

The part 14 has a pivotal element 16 adapted to engage in the socket 4 of the right hand end wall 3 of the member 1. There is a handle or finger portion 17 extending toward the right beyond the edge of the right hand end wall 3 and extending away from the paper roll R, which is here indicated in broken lines.

When it is desired to insert the spindle 5 with the roll of paper thereon between the walls 3, the member 14 is moved by the handle 17 so that it comes to the dotted line position indicated by 14*a* in Fig. 1, thus shortening the spindle 5 so that it will pass between the walls 3 and on releasing the member 14, the pivotal elements seat themselves in the sockets 4 of the end walls 3.

Thus the paper roll R is readily and conveniently mounted in its proper position in the member 1 and the member 14 cannot crush the edges of the paper in the roll R.

In Fig. 6 the numbers 21 and 22 indicate the fixed supports which are of tiling and each has a base portion 23 by which it is cemented into the room wall 24. The numeral 5' indicates the roll holding spindle which is formed in two parts 6' and 7', the part 6' being provided with a pivotal portion or element 8' which is adapted to engage in the socket or pivotal element 4' of the support 21. The part 7' has a tubular portion 10' into which the part 6' extends and is locked therein by the projection 25 which engages in one of the annular grooves 26 of the part 6'. The part 6' has a longitudinal groove 27 through which the projection 25 is moved to bring it into and out of position.

There is a resilient portion 14' joined to the tubular portion 10' and this is preferably in the form of a V-shaped spring having two branches 28 and 29. On the branch 29 is a pivotal element 30 secured in any suitable manner and a finger portion or handle 31 is provided thereon and placed so as to always be clear of the pivot support 22. When it is desired to insert the spindle 5' between the supports 21 and 22, the finger portion or handle 31 is moved to the left, thus moving the branch 29 and pivotal element 30. Thus the spindle is shortened enough to allow it to be placed between the supports 21 and 22, and for the elements 8' and 30 to respectively engage the elements 4' of the supports 21 and 22. When it is desired to remove the spindle 5', the handle 31 is moved to the left, the spindle being again shortened and can be removed from the supports.

In order to bring the spindle to fit varying distances between the supports, the parts 6' and 7' can be adjusted by first turning the tubular portion 10' until the projection 25 coincides with the longitudinal groove 27, then moving the part lengthwise along the groove until the desired length of spindle is attained, and then turning the portion 10' so that the projection 25 enters an annular groove 26.

In the modification shown in Fig. 10 it will be noted that the various parts of the device are formed from a single piece of metal and comprise a portion 5'' to be placed in the paper roll, and a V-spring 14'' having branches 28' and 29', a pivotal element 30' and a handle 31'. There is a pivotal element 8'' at the left hand end which is formed by bent portions 8''' on each side of the metal strip 35 of which the article is formed.

Another form is illustrated in Fig. 12 in which the part 6'' is similar to the part 6' of Fig. 6, but omitting the annular grooves 26, and the part 7'' differs from the part 7' of Fig. 6 in omitting the tubular portion 10'. The V-spring 14''' is similar to the V-spring 14' of Fig. 6 but has a number of perforations 36 in the left hand part 37, which last is inserted in the slot 38 of the part 6''. A pin 39 secures the parts 6'' and 7'' in position, being passed through one of the perforations of the part 37.

The form of the invention illustrated in Fig. 13 is similar to that of Fig. 1 but the member 6*m* is without the notches 6*c* and is solid and not of sheet metal as in that form. The spindle is indicated by 5*a* and is in two parts 6*m* and 7*m*. The resilient member is indicated by 14*a*, its pivotal element by 16*a* and its handle by 17*a*. 15*a* is the flattened part of the tubular portion 10*a*, and 15*b* are ears which grip the inner end of the member 14*a*. The portion 10*a* is tubular and has a longitudinal slot 11*a*, the diameter of 10*a* being slightly less than that of the part 6*a*, and the part 7*a* grips the part 6*a* with force sufficient to hold it in its normal position. The parts 6*a* and 7*a* can be forced by hand inwardly or outwardly to obtain proper adjustment.

What I claim is:—

1. A paper roll spindle having a pivotal element at one end, a resilient part at the other end also provided with a pivotal element, and an outwardly and transversely disposed handle portion whereby the spindle can be engaged and disengaged, said resilient part and handle portion being carried entirely by said spindle.

2. A paper roll spindle for use with a pair of fixed spaced oppositely disposed pivotal elements and comprising an end part having a pivotal element, a spring lever at the other end also provided with a pivotal element and a handle on the lever outward of the adjacent pivotal element, said spring lever and handle being carried entirely by said spindle.

3. The combination with two spaced fixed supports having oppositely disposed pivotal elements, of a paper roll spindle having a part to extend through the paper roll and provided with a pivotal portion to engage one of said support pivotal elements, and a resilient portion at the other end having a pivotal element to engage the other support pivotal element and a transversely disposed element free of the adjacent support and whereby the spindle can be engaged and disengaged from said supports.

4. A paper roll holding spindle comprising a tubular portion having a pivotal element, a second tubular portion telescopic relatively to the first mentioned one, and a spring lever carried by said second tubular portion, said lever provided with a juncture portion and a handle portion, there being a pivotal element between the juncture portion and handle portion.

5. A paper roll holding spindle comprising a tubular portion having a pivotal element and a plurality of notches spaced longitudinally of said portion, a second tubular portion telescopic relatively to the first mentioned one and having an element near one end to engage said notches and also having an apertured portion adjacent the other end, and a spring lever carried by said second tubular portion, said lever provided with a juncture portion to engage with said apertured portion and also provided with a handle portion and a pivotal element between the juncture portion and handle portion.

ABRAHAM S. SCHENKER.