Aug. 24, 1926.

1,597,525

A. H. KNAKE

WASHER

Filed Jan. 11, 1924

Fig. 1.

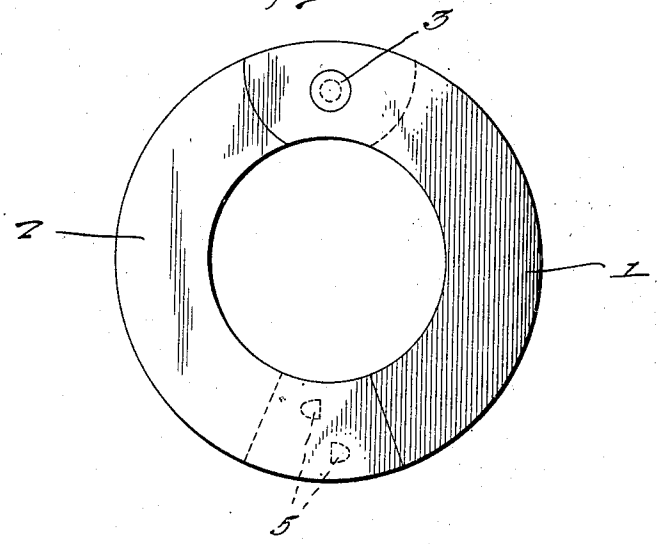


Fig. 2.

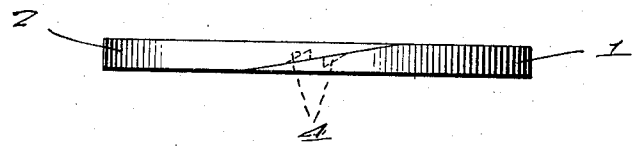


Fig. 3.

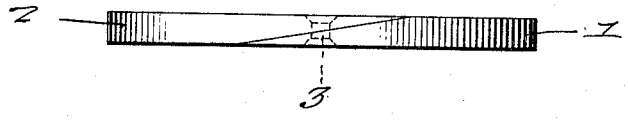
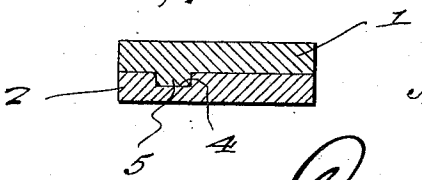


Fig. 4.



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Patented Aug. 24, 1926. 1,597,525

UNITED STATES PATENT OFFICE.

ARTHUR H. KNAKE, OF ST. JAMES, MINNESOTA.

WASHER.

Application filed January 11, 1924. Serial No. 685,649.

This invention relates to an improvement in washers and the principal object of my invention is to provide a washer which may be easily applied to a shaft or other support without the necessity of having to remove any parts carried by the shaft or support and thereby greatly reduce labor in the placing or replacing of the washers.

A still further object of this invention resides in the provision of an article of the above character, wherein the same may be manufactured and marketed at a cost but slightly greater than the cost of washers now upon the market.

With the foregoing and other objects in view as the nature of the invention will be better understood, the same comprises the novel form, combination and arrangement of parts hereinafter more fully described, shown in the accompanying drawing and claimed.

In the drawing wherein like reference characters indicate corresponding parts throughout the different views,

Figure 1 is a top plan of a washer constructed in accordance with the present invention,

Figure 2 is an edge view of the washer for more clearly disclosing the overlapping unpivoted ends of the segmental sections comprising said washer,

Figure 3 is a similar view for disclosing the overlapped pivotally joined ends of said segmental sections, and

Figure 4 is a detailed sectional view taken through said overlapping unpivoted ends of said segmental sections for disclosing more clearly the interlocking means between said unpivoted overlapping ends of the segmental sections comprising the washer.

Now having particular reference to the drawing, my novel washer embodies a pair of resilient segmental ring sections 1 and 2, pivotally joined together as at 3 whereby said sections may be swung toward or away from each other in the placing or removing of the washer upon a shaft or other support, it being noted from a consideration of the edge elevational view, Figure 3, that these ends of said segmental ring sections are formed with beveled or inclined overlapping ends.

The opposite free ends of said segmental ring sections 1 and 2, are also beveled or inclined for overlapping relationship with each other and opposed faces of these ends of said segmental sections are each formed with a beveled notch 4 and an oppositely beveled lug 5 in spaced relationship with each other. It will of course be understood that the relationship of the lugs and notches upon the opposite beveled ends of said segmental ring sections 1 and 2, are such as to permit the notch of one section to receive the lug of the other section and vice versa. Particular emphasis is to be laid on the fact that the sections of the ring cooperate with each other in such a manner that the inherent resiliency thereof serves to effectively maintain the cooperating lugs and notches in operative relation to guard against accidental separation of the ring sections, after the device is placed in position. In other words, it is to be noted that the section 1 of the ring, for instance, has its pivoted end disposed in overlapping relation with the corresponding end of the section 2, while its free bevelled end is disposed in underlapping relation with the corresponding end of the section 2. Obviously, this relative disposition of parts actually provides a snap action when the free bevelled ends of the sections are slid upon each other, that is, the resiliency and tension under which the sections are then placed causes the lugs to automatically snap into their cooperating notches.

It will therefore be seen that by swinging the sections 1 and 2 away from each other, the washer may be conveniently placed upon a shaft or support without removing any associated parts therefrom, it being also understood that the particular form of locking means between the unpivoted ends of said segmental ring sections 1 and 2 comprising the washer will effectively prevent the accidental swinging movement of the sections outwardly with respect to each other.

From the foregoing description when considered in conjunction with the accompanying drawing, it will at once be apparent to those skilled in the art, that I have provided a highly novel and efficient form of washer and one that will meet with all of the requirements for a successful commercial use.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:—

A sectional washer comprising a pair of

symmetrical semi-circular one-piece ring sections, the opposite ends of each of the sections being bevelled, and the bevel being disposed upon opposite faces of each section, one of said sections having its bevelled under face disposed in overlapping relation with the bevelled upper face of the other section, a pivot pin passing through said overlapped bevelled ends and connecting the sections together, the bevelled upper side of the free end of one section being disposed in underlapping relation with the bevelled under side of the free end of the other section to hold the free ends of the sections partially together by spring tension, and cooperating retaining elements on the free ends of said ring sections for preventing circumferential separation thereof.

In testimony whereof I affix my signature.

St. James, Minnesota.

A. H. KNAKE.