No. 706,227. Patented Aug. 5, 1902.

J. R. FLETCHER.

SUSPENSION CLAMP.

(Application filed Nov. 11, 1901.)

(No Model.)

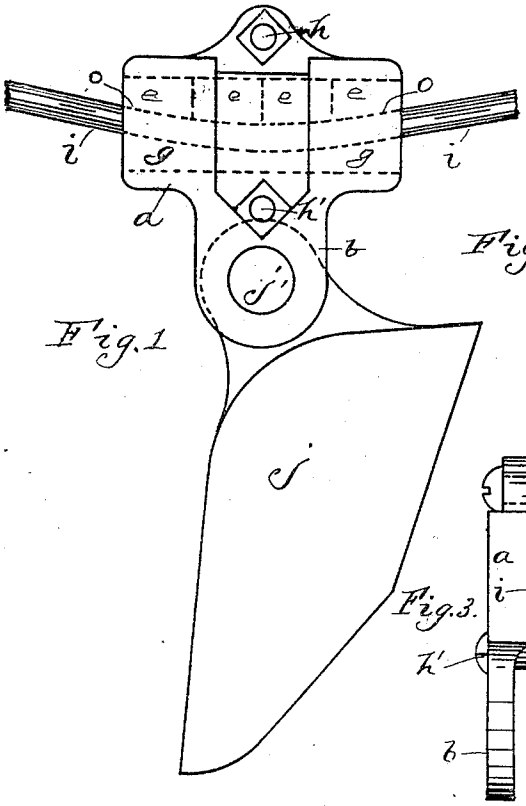


Fig. 1.

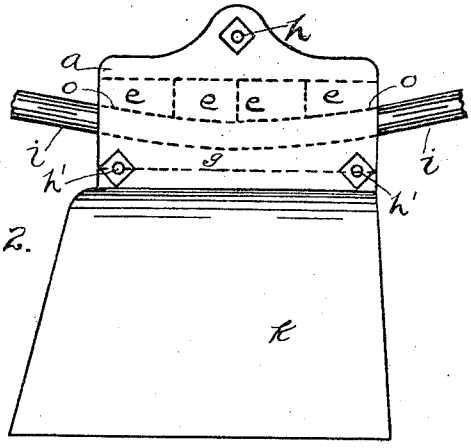


Fig. 2.

Fig. 3.

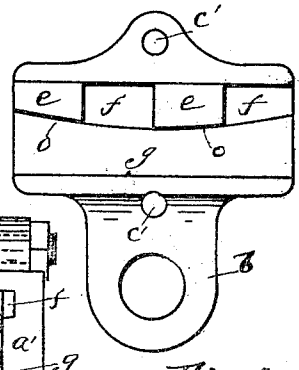


Fig. 4.

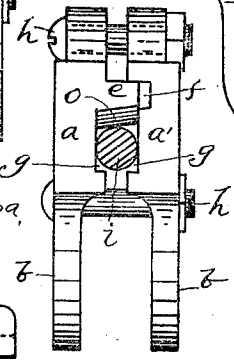


Fig. 3a.

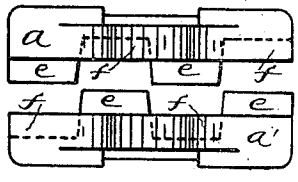


Fig. 5.

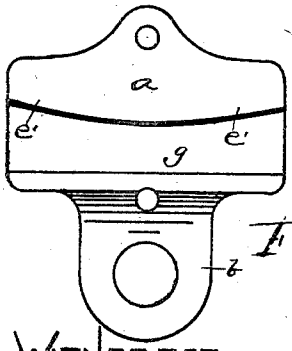


Fig. 6.

WITNESSES

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SUSPENSION-CLAMP.

SPECIFICATION forming part of Letters Patent No. 706,227, dated August 5, 1902.

Application filed November 11, 1901. Serial No. 81,836. (No model.)

To all whom it may concern:

Be it known that I, JOHN R. FLETCHER, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Suspension-Clamps; and I do declare the following to be a full, clear, and exact description of the invention, 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, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in suspension-clamps for ropes or cables of the class preferably used with electric-arc-light suspension-pulleys.

The object of the present invention is to provide an antifriction suspension-clamp which has a capacity for receiving different sizes of cables or ropes and which will not wear the cable unduly at any particular point.

It will be understood that the weight of the pulley or the combined weight of the pulley and the arc-lamp or other article which is suspended on the cable has the effect of sagging or causing a dropping of the cable at that particular point. Heretofore such sagging of the cable caused it to wear very much at certain points within the clamp. It is therefore the object of the present invention to provide means that will prevent the wearing of the cable due to the aforesaid weight and also to provide a clamp that is adapted to accommodate different sizes or diameters of cables.

While I have referred to the clamp as being especially suited for the use of suspension-pulleys for arc-lamps, it will of course be understood that the clamp may serve as a suspension-support for any other weight or article. Therefore its usefulness is not limited.

Preceding a detail description of my invention, reference is made to the accompanying drawings, of which—

Figure 1 is a side elevation of my improved suspension-clamp, showing a pulley-case suspended therefrom. Fig. 2 is a similar elevation showing another style of pulley-case suspended therefrom. Fig. 3 is an end elevation of the clamp, showing it accommodating a cable of minimum diameter. Fig. 3^a is a similar view showing the clamp accommodating a cable of maximum diameter. Fig. 4 is detached elevation of one of the parts of the clamp, showing the inner surface thereof. Fig. 5 is a top view showing the members of the clamp separated and in a position to be brought together. Fig. 6 is an elevation showing a modification of the clamp, which consists of a single lug projecting from the inner face of one of the clamp members and having the necessary rounded surface, to which the sag or curvature of the rope or cable conforms.

The suspension-clamp which is the subject of my invention consists of two members which may be termed "male" and "female" members, which when brought together to clamp the cable *i* are secured by bolts *h h'*, which penetrate openings *c'*. The inner surfaces of these clamps have recesses or channels *g*, through which the cable passes, and above these recesses each of said clamps has outwardly-projecting lugs *e e* with adjacent spaces or recesses *f f*. The lower surfaces of said lugs are rounded, as at *c*, and by means of these surfaces the clamp, with the suspending article, is supported on the cable. Referring to Fig. 4, it will be noted that one of the projections *e* is at one end of the clamp member and the other projection or lug *e* is at an intermediate point between the two extreme ends of the clamp. This figure, as before stated, represents one member of the clamp. The other member of the clamp has two similar lugs or projections *e e*, which are in such positions as to enable them to enter the recesses *f f* in the member shown in Fig. 4. This particular construction of the members of the clamp is illustrated in Fig. 5. By means of these lugs or projections the members of the clamp when brought together by the bolts *h h'* lock said members from any sidewise or lateral movement.

While I have shown each of the clamp members as having two lugs *e*, I do not limit myself to such number, as a greater or less number of such lugs may be employed—such, for example, one lug may be employed or three lugs or more, as may be preferred. In Fig.

6 the clamp is shown to have one continuous lug e' of suitable curvature to provide a non-frictional wearing-surface.

From Figs. 1 and 2 it will be noted that the part of the cable upon which the clamp is attached has a curvature or sag, which, as before stated, is due to the weight of the suspended article. It will be noted from these views of the drawings that the cable in such position comes in contact with the arc or rounded surface which is due to the lower rounded surfaces $o\ o$ of the several lugs $e\ e$, as before stated. It therefore follows that the cable will not be worn away at any particular point, but that the wear of such cable will be uniform and gradual to an extreme.

j designates the case of a pulley, which is swiveled to the clamp at j'.

Fig. 2 shows a case k of somewhat-modified form, which is an integral part of the clamp.

As before stated, the clamp may be used for suspending various articles.

The two members $a\ a'$ of the clamp are provided with downwardly-projecting ears $b\ b$, through which the pivot-pin j' passes. The members of the clamp are shown in Figs. 3 and 3^a and are drawn securely together by means of bolts $h\ h'$ or otherwise.

Besides the very useful feature hereinbefore described, consisting of the absence of any biting or wearing friction between the clamp and the cable, any of the various diameters of cables may be fitted by my improved antifriction adjustable suspension-clamp.

Having described my invention, I claim—

1. As a new article of manufacture, the herein-described clamp comprising two interlocking members, the adjacent surfaces of which are provided with laterally-projecting lugs with adjacent recesses, the lower surfaces of said lugs when interlocked, providing a continuous rounded surface which provides a gradual curve to which curvature the rope or cable upon which said clamp is supported, conforms, the said clamp having a horizontal channel extending through it below the lugs and through which the said rope or cable passes, the said lugs forming the upper inclosure of said channel, and means for securing the clamp members together.

2. A suspension-clamp consisting of two interlocking members having a horizontal channel in the adjacent surfaces thereof through which a rope or cable passes, laterally-projecting lugs on the adjacent surfaces of said members, adjacent recesses into which said lugs project, the said lugs having their lower surfaces suitably rounded to provide a continuous and uniform curve, to which curvature the rope or cable conforms, and means for connecting said members above and below the rope or cable.

3. In a suspension-clamp for cables, the combination with a pulley-case, of a suspension-clamp consisting of two interlocking members to which said case is swiveled, the said interlocking members having a horizontal channel therein through which the cable passes, laterally-projecting lugs on the inner adjacent surfaces of said members above the channel through which the cable passes, the lower surfaces of said lugs forming a curved inclosure for the top of said channel, recesses adjacent to said lugs into which the lugs on the opposite members project, and means for connecting said members above and below the horizontal channel.

4. A new article of manufacture, comprising a suspension-clamp, having a channel therein through which a rope or cable passes, a suitably-rounded surface in said clamp which lies above the rope or cable and forms a bearing-surface between the clamp, and the rope or cable, the said bearing-surface being rounded to conform to the curvature of the rope or cable, and whereby any sharp edges or corners of the clamp are prevented from coming in contact with the rope or cable.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN R. FLETCHER.

Witnesses:
R. J. McCARTY,
THOS. J. ELLIFF.