(No Model.)

L. H. KNOPPING.

BICYCLE TOOL CASE.

No. 604,988. Patented May 31, 1898.

Fig. 1.

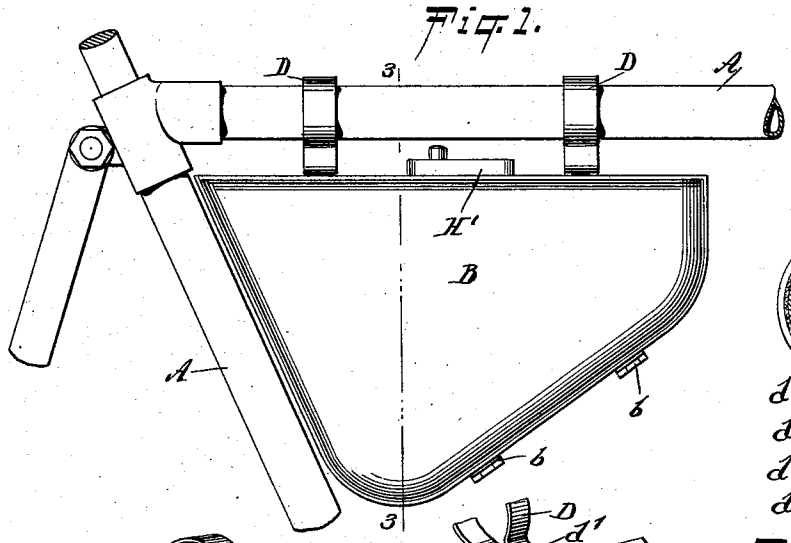


Fig. 6.

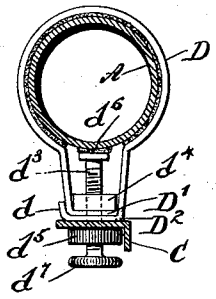


Fig. 2.

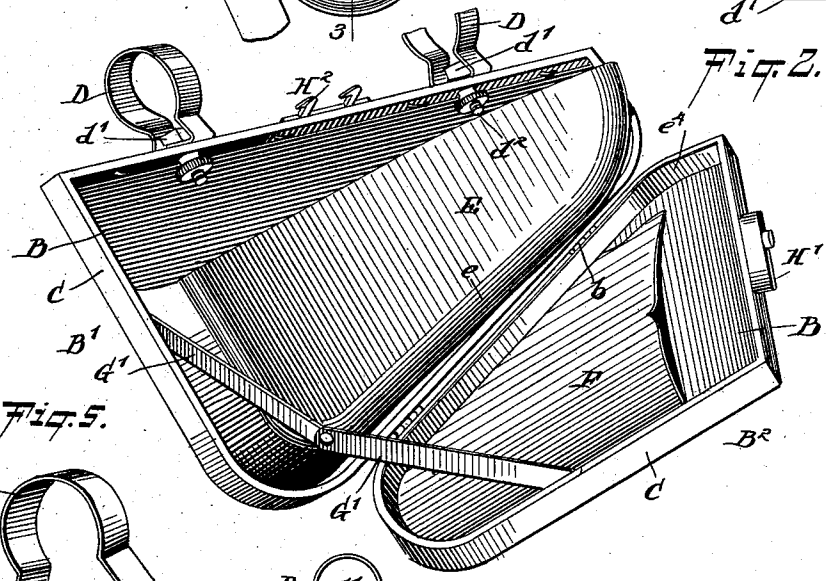


Fig. 5.

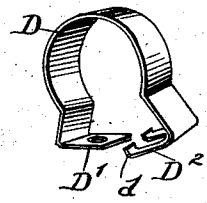


Fig. 3.

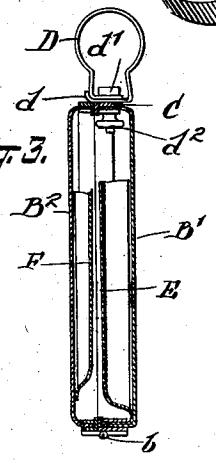
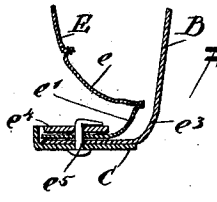


Fig. 4.



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LOUIS H. KNOPPING, OF NEW YORK, N. Y.

BICYCLE TOOL-CASE.

SPECIFICATION forming part of Letters Patent No. 604,988, dated May 31, 1898.

Application filed September 14, 1897. Serial No. 651,612. (No model.)

To all whom it may concern:

Be it known that I, LOUIS H. KNOPPING, of New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Bicycle Tool-Cases, of which the following is a full, clear, and exact description.

My invention relates to improvements in bicycle tool-cases, and particularly in the manner of forming the case and of attaching the same to the bicycle.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of my tool-case, showing the adjacent portions of the bicycle-frame to which it is attached. Fig. 2 is a perspective view of the tool-case opened. Fig. 3 is a cross-sectional elevation of the tool-case, taken on the line 3 3 of Fig. 1. Fig. 4 is a detail cross-sectional elevation showing the manner of fastening the fabric to the frame of the case. Fig. 5 is a perspective view showing the strap or band used for attaching the case to the bicycle-frame, and Fig. 6 is a view showing the clamping band and bolt in detail.

My tool-case comprises two halves B' B^2, which are pivoted to each other, and each half consists of a bar or band forming the outline of the half and having a sheet of fabric attached thereto. This band is represented by C, and is preferably formed of a thin metal bar. The two halves of the case are pivoted upon their lower edges by the hinges *b*.

The framework formed by the bar C has a sheet of fabric B attached thereto and forming the side of the case. The half B' of the case is also provided with a pocket formed by a sheet of fabric E, which is attached at its bottom and end edges to the frame. This sheet of fabric is not attached directly to the frame, but to a strip or band *e*, and this in turn to a second strip or band *e'*. The latter is secured to the frame C by means of a small metal strip e^4, between which and the frame C the strip *e'* and the lower portion e^3 of the sheet of fabric forming the outer side of the case are inserted. These parts are all bound together by rivets e^5 or other suitable means. This permits the pocket *e* to be held out away from the opposite side of the case, so as to permit the tools to be inserted therein without restricting the area of the pocket at the ends. The other half B^2 of the case may, if desired, be provided with a pocket F, which may be secured to the outer sheet of the fabric by any suitable means.

The two halves of the case are connected by pivoted links G, which at one end are pivoted to each other, and at their other ends are pivoted to the frame C. These links are of such a length as to hold the half B^2 in a horizontal position when opened and let down. The links are also of such a length and so placed as to close within the casing when the halves B' B^2 are folded together.

The tool-case is secured to the tubes A of the bicycle by means of clamps D. These clamps consist of a band of metal, preferably spring metal, which is wound around the tube and has its ends D' and D^2 bent inward at right angles to the body thereof. The end D' is provided with a hole adapted to receive the clamping-bolt *d'*. The end D^2 is provided with a slot extending inward from the end thereof and adapting it to slip over the bolt *d'*. The extreme ends of the halves formed by such slot are bent upward, as shown at *d*.

In applying the clamp to the tube of the bicycle-frame the ends are separated sufficiently to allow it to be placed over the tube. The bolt *d'* is inserted through the hole in the end D'. The end D^2 is then slipped over the bolt and beneath the end D', the upwardly-turned ends *d* engaging with the bent angle of the end D' and preventing the slotted end from pulling out when the bolt has been clamped thereon. The bolt is secured in place by means of a small thumb-nut d^2, placed upon the inside of the tool-case. The end D^2 may, if desired, be placed above the end D', in which case the upwardly-turned ends *d* engage the opposite side of the head of the bolt *d'*.

This case when opened out in the position shown in Fig. 2 forms a convenient ledge upon which the tools may rest, so that they are convenient for use. The two halves of the casing are also provided with a lock consisting of two parts H' and H^2, which are of any convenient or usual construction.

In Fig. 6 is shown a fastening means for the clamping-bands D, by which they may be made to fit tubes of considerable difference in

size. This consists in making the bolt d^3 longer than the bolt d' (shown in the other figures) and providing it with a second locking-nut d^5. This locking-nut and the head d^4 are inside the tool-case. The upper end of the bolt is provided with a block d^6, faced with leather or similar material, so that it will not deface the surface of the tube. By screwing the bolt d^3 up by means of the thumb-nut d^7, so as to engage the bottom of the tube, and securing it by the lock-nut d^5 the bolt will securely hold the clamp in place. The clamp will also be capable of attachment to tubes of different sizes.

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

1. A tool-case for bicycles, formed in two halves each half comprising a metallic frame, consisting of a band or bar and forming the outline thereof, and a sheet of fabric fastened thereto, hinges connecting the two halves at their bottom edges, clamps connected with the upper part of the metallic frame of one of the halves of the case and arranged to connect said half to the bicycle-frame, the fastening means for the said clamps being controlled from the inside of the tool-case, and means for supporting the other half of the case in a horizontal position when opened, substantially as described.

2. A tool-case for bicycles formed in two halves each half comprising a metallic frame forming the outline thereof, and a fabric sheet secured thereto forming the sides of the case, a pocket for one side or half of said case comprising a sheet of fabric having a fabric strip or band secured to its bottom and end edges, a second strip or band lying parallel with the rim of said half and secured to the first strip or band, and a metal strip secured to the frame and between which and the frame the latter fabric strip and the fabric sheet forming the outer side of the case are clamped, substantially as described.

3. A clamp for bicycle tool-cases, comprising a strap having a bent or curved portion to fit about a tube, and straight portions extending from the ends of the curved portions, the free ends of the straight portions being bent sharply inward, one of said inwardly-extending ends being perforated to receive a locking-bolt, and the other inwardly-extending end having a slot formed therein extending from the end longitudinally of the band, the tips of each half thereof turning upward, for the purpose set forth.

4. The combination with a tool-case for bicycles, of a clamp consisting of a metal strap or band bent to fit about a tube, and having its ends bent inward at right angles to the body thereof, one of said inwardly-bent ends being perforated and the other end having a longitudinal slot formed therein and extending from the end thereof, the extreme ends of the halves formed by said slot being turned upward for the purpose set forth, a bolt adapted to extend through the perforation and slot in the ends of the band, and through the frame of the tool-case to the inside thereof, and means located inside the tool-case for locking the bolt to hold the clamp in position, substantially as described.

5. A clamp for embracing tubes and similar cylindrical forms comprising a band embracing the tube and having its ends at a short distance apart bent outward in substantially a radial direction and then toward each other in a tangential direction, the ends overlapping each other, the outer end at its extremity being bent inwardly or toward the center and engaging the angle or bend of the other end, and a radial bolt passing through the tangential parts of each end, substantially as described.

6. A clamp for embracing tubes and similar cylindrical forms comprising a band embracing the tube and having its ends at a short distance apart bent outward in substantially a radial direction and then toward each other in a tangential direction, the ends overlapping each other, the outer end at its extremity being bent inwardly or toward the center and engaging the angle or bend of the other end, the tangential portion of one end having a hole therethrough, and of the other end having a slot extending to the end and a radial bolt passing through the tangential parts of each end, substantially as described.

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Witnesses:
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F. W. HANAFORD.