(No Model.)

T. AYRES.

CLEW RING.

No. 527,260. Patented Oct. 9, 1894.

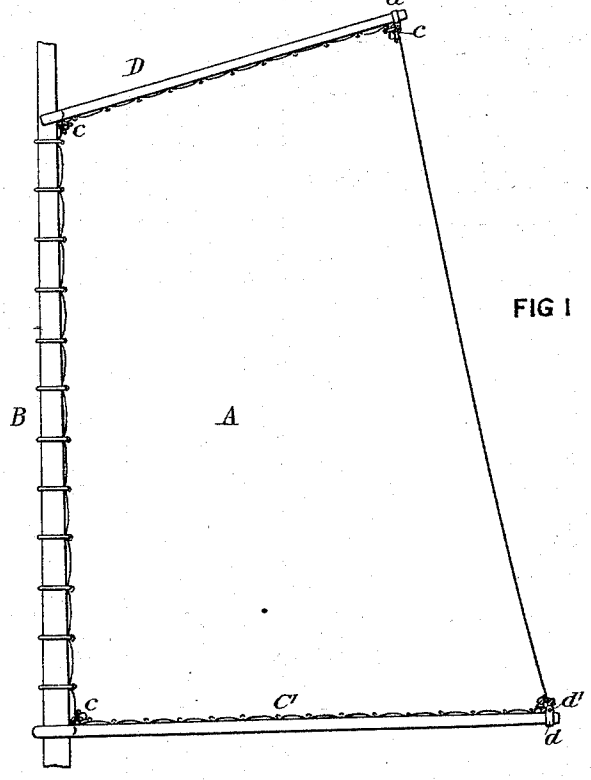


FIG 1

FIG. 7.

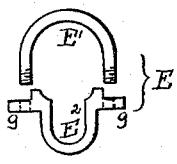


FIG 2

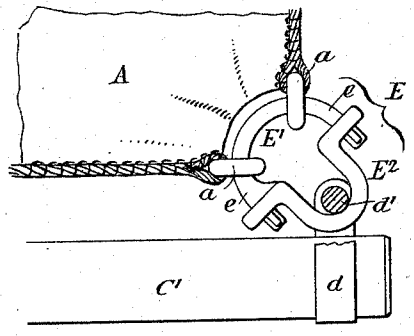


FIG 5

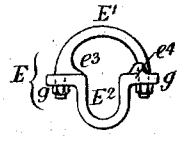


FIG 3

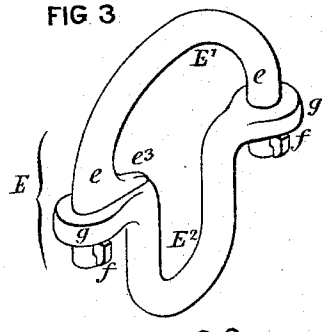


FIG 6

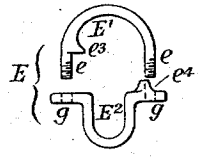
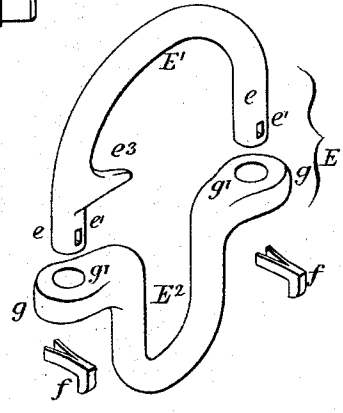


FIG 4



WITNESSES

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THOMAS AYRES, OF PHILADELPHIA, PENNSYLVANIA.

CLEW-RING.

SPECIFICATION forming part of Letters Patent No. 527,260, dated October 9, 1894.

Application filed February 16, 1894. Serial No. 500,334. (No model.)

To all whom it may concern:

Be it known that I, THOMAS AYRES, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Two-Part Rings for Securing Sails, &c., of which the following is a specification.

The object of my invention is to construct a detachable ring for securing a sail to the gaff or boom of a vessel.

My invention is especially adapted for securing the earing to the gaff or the clew to the boom. Heretofore these portions of the sail were secured by a solid ring, generally made heart shaped and permanently secured to the sail. Consequently if one of the rings should break the only way to fasten the sail prior to my invention was to pass a rope through the eyes in the sail and lash it to the boom or gaff. This method is very unsatisfactory as the strain is so great that the rope is quickly cut away and has to be constantly replaced.

In the accompanying drawings:—Figure 1, is a view of the sail attached to the boom and to the gaff. Fig. 2, is an enlarged view showing the ring securing the clew to the boom. Fig. 3, is a perspective view showing the two portions of the ring united. Fig. 4, is a perspective view showing the two portions detached. Figs. 5 and 6 are views of a modified form of the invention. Fig. 7, is a view of a modification.

A is one of the main sails of a schooner. B is the mast. C is the boom and D is the gaff.

The corners of the sail are secured ordinarily to the boom and gaff by rings *c* (Fig. 1), made solid and permanently fastened to the sail when the sail is made. On the boom and gaff are secured bands *d* having bolts *d'* which pass through the ring and secure the sail in position. By withdrawing these bolts the sail can be readily detached as the rings are fixed to the sail.

In the event of the breaking of one of the above mentioned rings I provide a two part ring E. Shown clearly in Figs. 2 and 3. The part E' of the ring is semi-circular in form with extended ends *e e* and in these ends are slots *e'* for the passage of keys *f f*. The part E^2 of the ring is U-shaped so as to fit around the bolt *d'* of the sleeve *d*. The two laterally extending arms *g g* of the part E have holes *g'* of a size sufficient for the free passage of the ends *e* of the part E'. On one arm of the section E' is a projection or shoulder e^3 which has a curved surface and forms when the two sections are together, a fillet as clearly shown, so as to fill up one corner of the ring. The section E' of the ring is of an even diameter throughout with the exception of this one shoulder so that it will readily pass through the eyes *a a* of the sail. After the section E' is passed through the eye of a sail its ends are passed through the holes in the arms of the section E^2 and the keys are driven in the slots, thus securing the two portions of the ring together. The bolt *d* is then withdrawn and the ring is placed so that the bolt will pass through the contracted U-shaped portion of the section E^2 of the ring, thus making a secure fastening as shown clearly in Fig. 2, which illustrates the clew of the sail secured to the boom by my improved ring.

In Figs. 5 and 6, I have illustrated the section E^2 provided with a fillet e^4 formed on the upper surface of one of the lateral extending arms so that when the two parts of the ring are secured together the inner surface will be curved throughout obviating any corners. The fillet e^3 may in some instances be formed on the section E^2 instead of on the section E' as shown in Fig. 7 and the ends *e e* of the section E' may be threaded and provided with nuts without departing from my invention.

While my two part ring is especially adapted to secure the clew of a sail to the boom or the earing to the gaff, it will be understood that it can be used for other purposes on a vessel or may be used in other places without departing from my invention.

I claim as my invention—

1. The combination in a two part ring, of the section E' U-shaped and having extended ends, with a U-shaped section E^2 having arms perforated for the passage of the extended ends of the section E', a shoulder on either of the sections forming a fillet and securing devices on said extended ends for locking the sections together, substantially as described.

2. The combination in a two part ring, the section E' being U-shaped having extended

ends, a shoulder on one arm forming a fillet when the two parts of the ring are together, the other arm being of an even diameter with the body of the ring, with a section E^2 U-shaped having laterally extending perforated arms, with securing devices for fastening the two rings together, substantially as described.

3. The combination in a two part ring, the section E^2 having a narrow U-shaped portion, and laterally extending perforated arms, the section E′ being U-shaped with arms adapted to the perforated arms of the section E^2, a shoulder on the portion E′ adapted to form a fillet on one side of the ring and a projection on one of the arms of the section E^2 forming a fillet on the opposite side of the ring, with means for securing the portions together, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

THOMAS AYRES.

Witnesses:
WILLIAM A. BARR,
EDWIN C. FREEMAN.