C. C. DENNER-MEIER.

LOCKING DEVICE FOR UNITING EDGED BODIES.

APPLICATION FILED FEB. 20, 1912.

1,116,249. Patented Nov. 3, 1914.

Fig.1

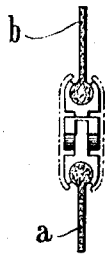


Fig.2

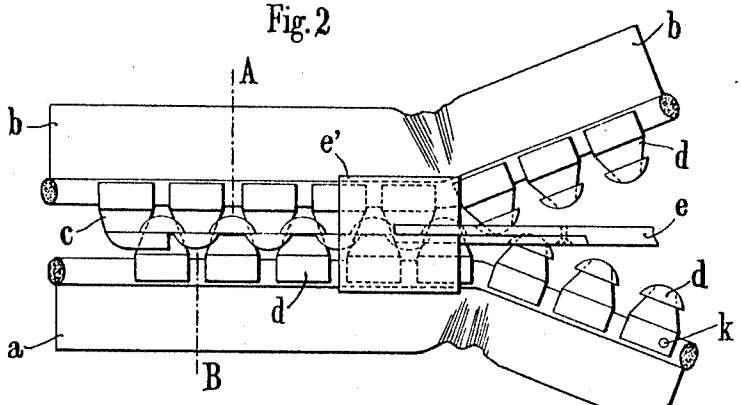


Fig.3



Fig.4

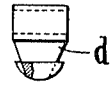


Fig.5

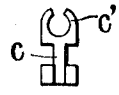


Fig.6

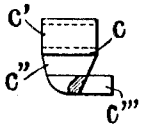
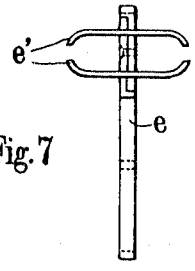


Fig.7



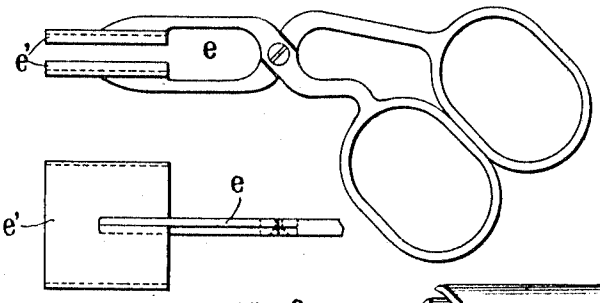


Fig.8

Fig.9

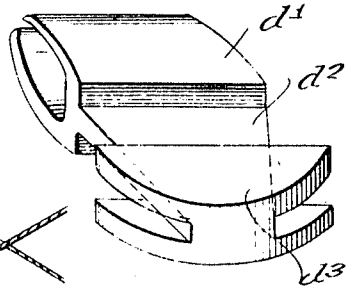


Fig. 13.

Fig.10

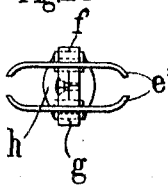


Fig.11

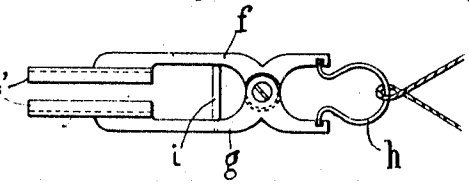
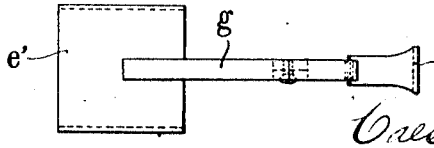


Fig.12



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Inventor:
Oscar C. Denner-Meier
by B. Singer Atty

UNITED STATES PATENT OFFICE.

CAESAR CARL DENNER-MEIER, OF STÄFA, SWITZERLAND.

LOCKING DEVICE FOR UNITING EDGED BODIES.

1,116,249. Specification of Letters Patent. Patented Nov. 3, 1914.

Application filed February 20, 1912. Serial No. 678,968.

To all whom it may concern:

Be it known that I, CAESAR CARL DENNER-MEIER, a citizen of the Republic of Switzerland, and a resident of Stäfa, in the Canton of Zurich, Switzerland, have invented new and useful Improvements in Locking Devices for Uniting Edged Bodies, of which the following is a full, clear, and exact specification.

This invention has reference to a locking or coupling device for uniting edged bodies. On each of the edges of said bodies there is disposed a row of projecting coupling members and the coupling of the two bodies, or rows of members is accomplished by means of an appliance which laterally embraces said members and which is moved along the two bodies. The members of one row are thereupon caused to project between and to be coupled with the members of the other row.

In the accompanying drawing forming part of this specification Figure 1 is a cross section on line A—B of Fig. 2. Fig. 2 shows the device in side elevation. Fig. 3 is a detail view showing one of the members of the locking device in front elevation. Fig. 4 is a side elevation of the same. Fig. 5 is a front elevation of the lower locking member. Fig. 6 is a side elevation of the same. Figs. 7, 8 and 9 are respectively a front elevation, a side elevation and a top plan view of the locking appliance. Figs. 10, 11 and 12 show the locking appliance in a modified form, representing respectively a front elevation, a side elevation and a top plan view. Fig. 13 is a detail perspective view of one of the hooks *d* on an enlarged scale.

The locking device according to my invention includes two strips *a*, *b* (Figs. 1 and 2) provided with edge-ribs. An end member *c* (Figs. 5 and 6), intermediate members *d* (Figs. 3 and 4), and a locking appliance *e* (Figs. 7, 8, 9 and Figs. 10, 11 and 12 respectively), are provided, the former of which may have the form of a pair of scissors. The strips *a* and *b* are adapted to be secured with their longitudinal edges facing the ribs, to the edges desired to be united, say for instance of some article of clothing, not shown. The end member, and the intermediate members, are each provided with spaced portions having flanges *c'*, the free ends of which embrace the ribs. The end member, as shown in Figs. 5 and 6, are formed with a grooved neck *c''*, the narrow sides of which converge toward each other in the direction of the free ends. At the free ends the neck presents on its broad sides two flat sided heads or bifurcated arms *c'''*, projecting beyond one of the beveled sides. The members or hooks *d* have shanks *d'* and are also provided with necks d^2 having heads d^3 which however project beyond both of the converging sides of the neck and which at their lower part are rounded off semi-circularly. As shown in Fig. 2 the members *d* are disposed in such a manner on the ribs of strands *a* and *b* that the members of the one row will fit between the members of the opposite row, their necks engaging at the same time between the bifurcations of the laterally adjacent members with the heads overlapping laterally, so that their flat sides will engage each other. The end member disposed on the strand *b* will prevent the locking device from being accidentally opened from this end. The simultaneous locking of the device is preferably effected by means of an appliance as shown in Figs. 7 to 12. According to Figs. 7 to 9 this device has the form of a pair of scissors, the free legs of which are provided with the plates *e'*. The two longitudinal sides of the latter are in-turn toward each other, so that whenever the appliance is in locking position, sufficient clearance is left for passing the two strips between said plates (Fig. 1). According to Figs. 10 to 12 the appliance has two legs *f*, *g*, which, not being arranged at an angle, are articulated together and are likewise provided on one end with two plates *e'*, while a bow-shaped spring *h* engages the other ends. Said spring keeps the appliance closed, the locking position of the two legs being limited by a pin *i* arranged between them.

It is the intention to have the last mentioned appliance attached to the article of clothing which has been provided with the locking device, and to this end, it may be secured by a piece of string to the same. In order to prevent any possibility of these appliances slipping down over the rows of members, the last member of the strand *a* is provided with a pin *k* projecting from the same.

The locking of the device is accomplished by first slipping the end member with its arm over the heads of the first member *d* of the other strand and then the closed locking appliance, which embraces the two rows

of members, will have to be moved toward the open end of the locking device. As a result, the members *d* will be successively locked into engagement as shown by Fig. 2. The locking device can only be opened from the starting uncoupling end or that end last closed, and in order to open the same, the strands *a* and *b* are successively spread apart.

I claim:—

1. An article of manufacture comprising flexible strips, a series of fasteners on each strip, each fastener comprising a base secured to the strip and a head projecting from the base, said heads having interior lateral grooves and bifurcated ends forming projections, the projections of the heads of one series being adapted to enter the grooves of the heads of the other series and also engage the bifurcated projections thereof, and means for coupling the bifurcated projections of the heads of one series with the projections and grooves of the heads of the other series, substantially as described.

2. An article of manufacture comprising flexible strips, a series of fasteners on each strip of identical formation with respect to each other, said fasteners having bases secured to the strips in spaced relation with respect to each other and each fastener having an interiorly solid head provided with flat sides and projecting outwardly from its base, the flat sides being grooved and the said heads having projections whereby the grooves and projections of one head of one series may be engaged with the grooves and projections of the heads of the other series, and all of the grooves and projections of said heads being disposed outwardly with respect to the bases of said fasteners, and means for connecting the heads of one series with the heads of the other series, substantially as described.

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

CAESAR CARL DENNER-MEIER.

Witnesses:
CARL GUBLER,
HARRY A. MCBRIDE.