

R. C. SAYER.
 MEANS FOR SECURING BODIES TOGETHER.
 APPLICATION FILED AUG. 7, 1908.

933,852.

Patented Sept. 14, 1909.

FIG. 1

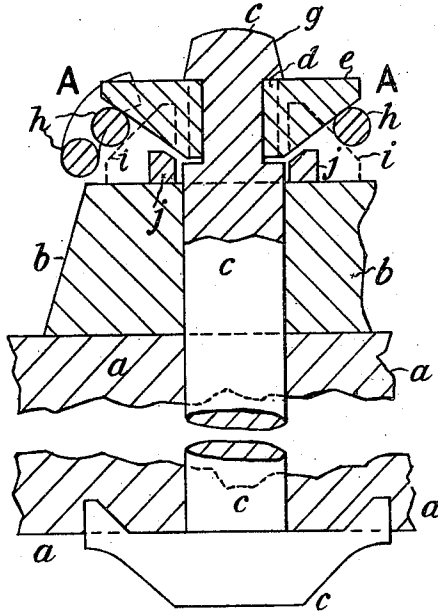


FIG. 2

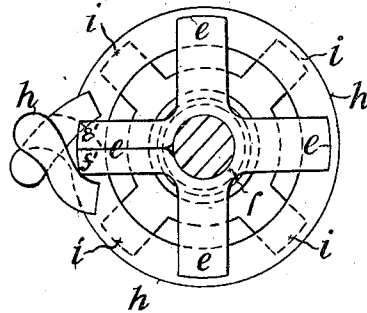


FIG. 3.

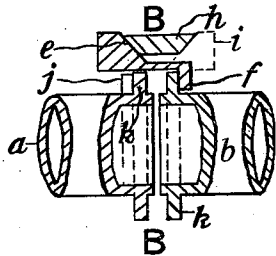


FIG. 4.

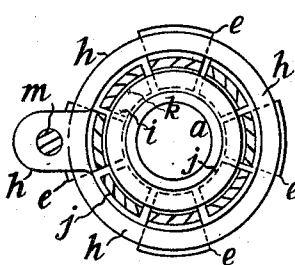


FIG. 5.

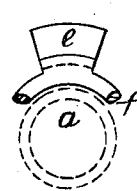


FIG. 6.

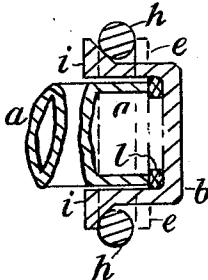


FIG. 7.

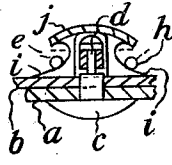


FIG. 8.

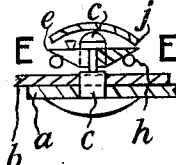


FIG. 9.



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MEANS FOR SECURING BODIES TOGETHER.

933,852.

Specification of Letters Patent. Patented Sept. 14, 1909.

Application filed August 7, 1908. Serial No. 447,477.

To all whom it may concern:

Be it known that I, ROBERT COOKE SAYER, a subject of the King of Great Britain and Ireland, residing at 11 Clyde road, Redland, Bristol, England, have invented certain new and useful Improvements in Means for Securing Bodies Together, of which the following is a specification.

The object is to secure two, or more, bodies together; and essentially consists of one or more inclines, or wedges, formed in one with, or adapted to act against one of the bodies to be connected; a rod, tape, bar, elastic band, wire, string, cotton, or other means, to pass around and act on the wedges to thrust them direct, or by means of other wedges formed reversely to the former, against another of the bodies to be connected, to thrust all of them together.

The object is set out in the specification and drawing where—

Figure 1 shows the invention adapted to connect a rail chair and sleeper by means of a fang bolt. Fig. 2 is a sectional plan at A—A Fig. 1. Fig. 3 shows the invention adapted to connect the ends of two flanged tubes. Fig. 4 is a section at B—B Fig. 3. Fig. 5 a detail elevation, in part the same as Fig. 4. Fig. 6 shows the invention adapted to close the end of a tube. Fig. 7 shows the invention adapted to connect the sides or ends of one, or two bodies in sectional elevation at C—C Fig. 9. Fig. 8 a section at D—D Fig. 9. Fig. 9 a sectional plan at E—E Fig. 8.

In reference to the drawing:—in each of the above adaptations of the invention the same parts are indicated by the same letters.

Figs. 1 and 2 show in part a railway sleeper *a*, on which is a chair *b* to carry a rail as usual, and form two bodies to be connected by the fang bolt *c* having a recess *d* to receive the inclines or wedges *e*, which are connected by an annular part *f*. One of the wedges *e* is divided to form the portions *e'f'*, that are constructed as a spring so as to be thrust apart when passed over the conical part *g* of the bolt *c* and snap into the recess *d*; *h* is a rod or wire passed around the wedges *e*, to act against them and be thrust down upon the chair *b* direct, or as shown, against other inclines, or wedges *i*, connected in one with ring parts *j*, passed over *c*, *i*

being between *e* to rest on *b*, and thrust the bodies *a* and *b* together by *h* the rod or wire tending to thrust parts *e c d a* up and *i b* down; the rod or wire *h* may preferably be heated to expand it, tightened upon *e* and *i*, and its ends turned up as shown in Fig. 2 to retain the portions *e'f'*.

Figs. 3 to 5 show two tubular bodies *a b* connected similarly to the above by two series of any number of reversely acting wedges *e i* detached from *a b* with the ring parts *f j* acting against the flanges *k* when thrust apart by the double wedge strap *h* to tighten *a* and *b* together against a flexible jointing ring part *l*; to facilitate taking the bodies *a b* apart again *h* may be formed in two halves, hinged at one end to each other and connected at their other ends by a bolt or rivet *m* instead of a knot or twist.

Fig. 6 shows a tubular body *a* formed integral with the wedges *e* to be closed to retain fluids by a body *b* formed integral with the wedges *i* to pass over and between *e*, when the rod or wire *h* is contracted around and drives *a* and *b* together, against an elastic ring *l*.

Figs. 7 to 9 show two, or more sheet bodies *a* and *b* to be secured together by a rivet part *c* recessed at *d* to act against *a*; the wedges *i* are connected by the ring or circular cover part *j* to act against *b* and tighten it upon *a* when the rod, wire, cotton, or elastic band *h* tightens upon the wedges *e* and *i*, to thrust them apart; when desired *i* and *j* may be omitted for *h* to act direct against *b*; and pins *n* be formed on the end parts of the divided wedge *e* to draw them together with *h*.

What I claim and desire to secure by Letters Patent is:—

In combination with the two parts to be connected together, inclines connected with one part, opposing inclines connected with the other part, and annular means engaging with the inclines for forcing the parts together, the ends of said annular means being adapted to be connected together.

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

ROBERT COOKE SAYER.

Witnesses:

J. PERRY WORDEN,
GEORGE T. PITCHER.