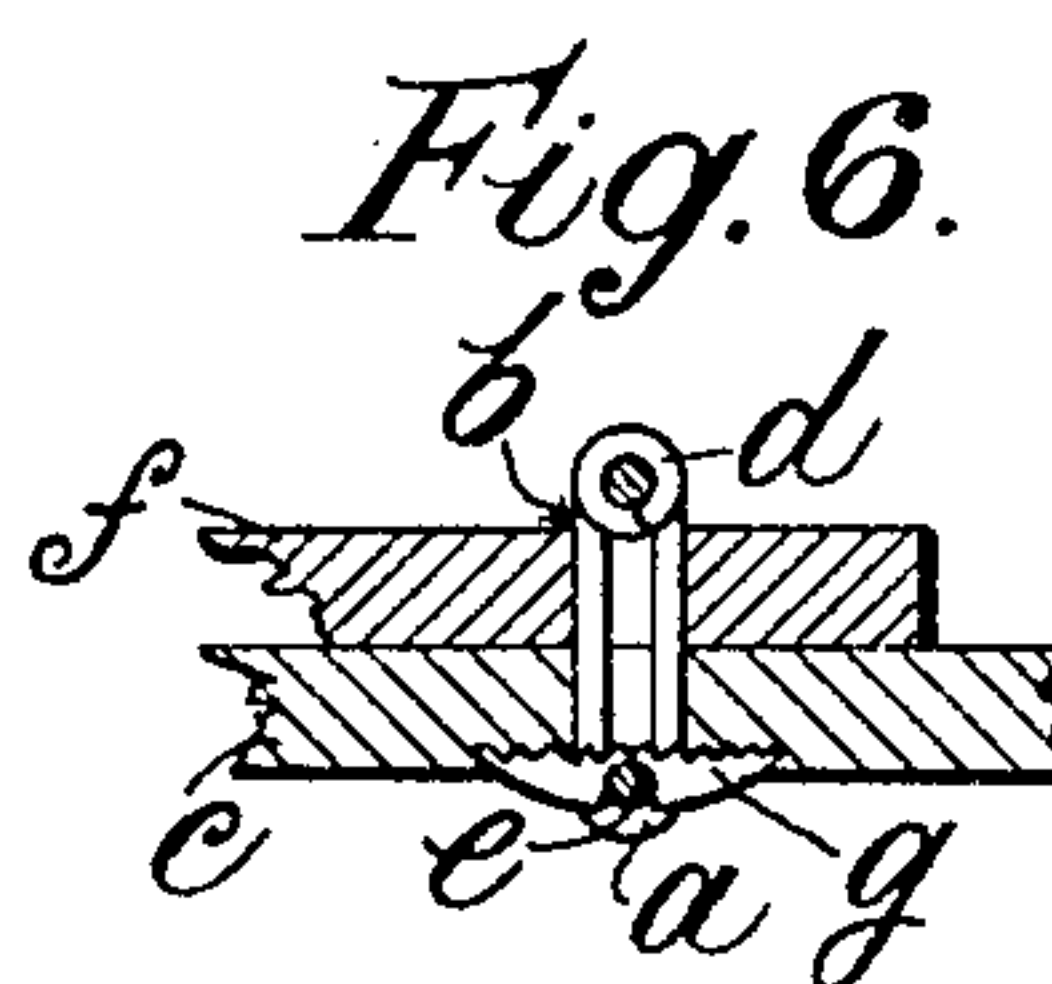
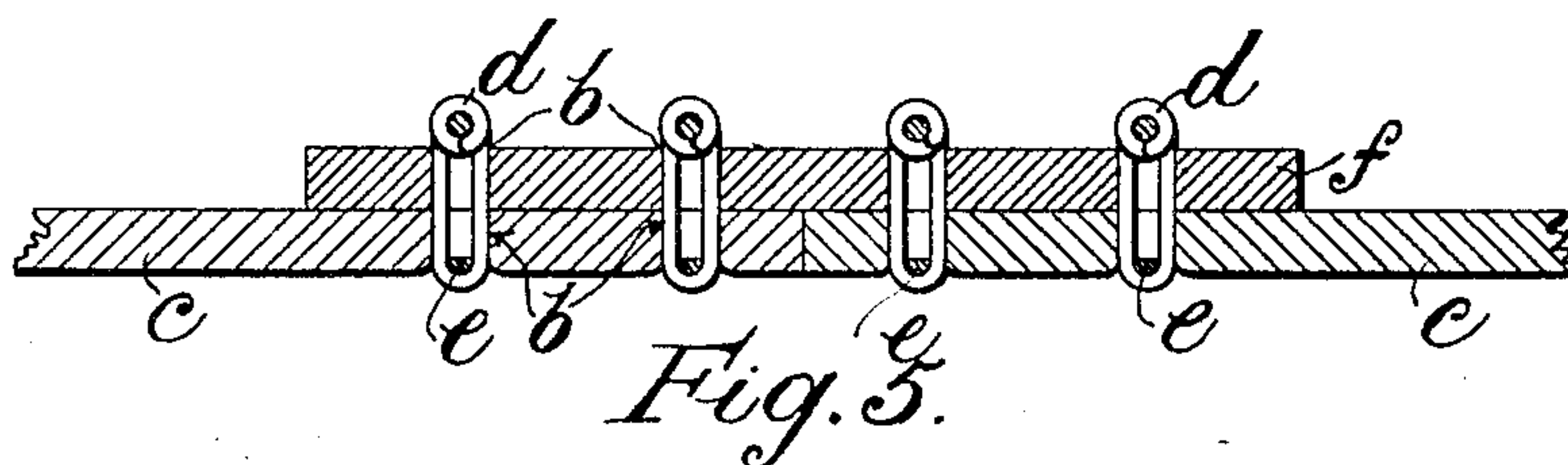
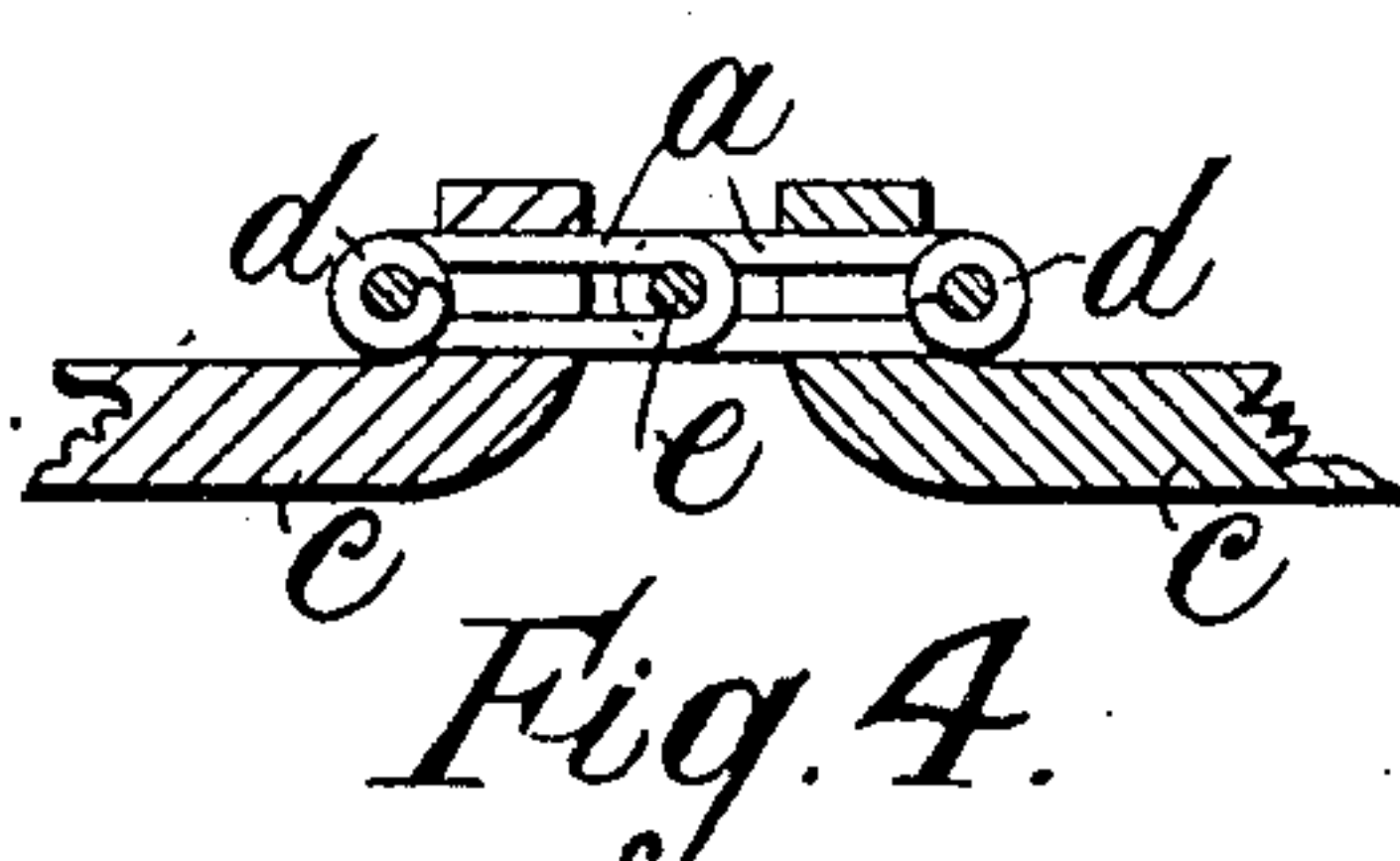
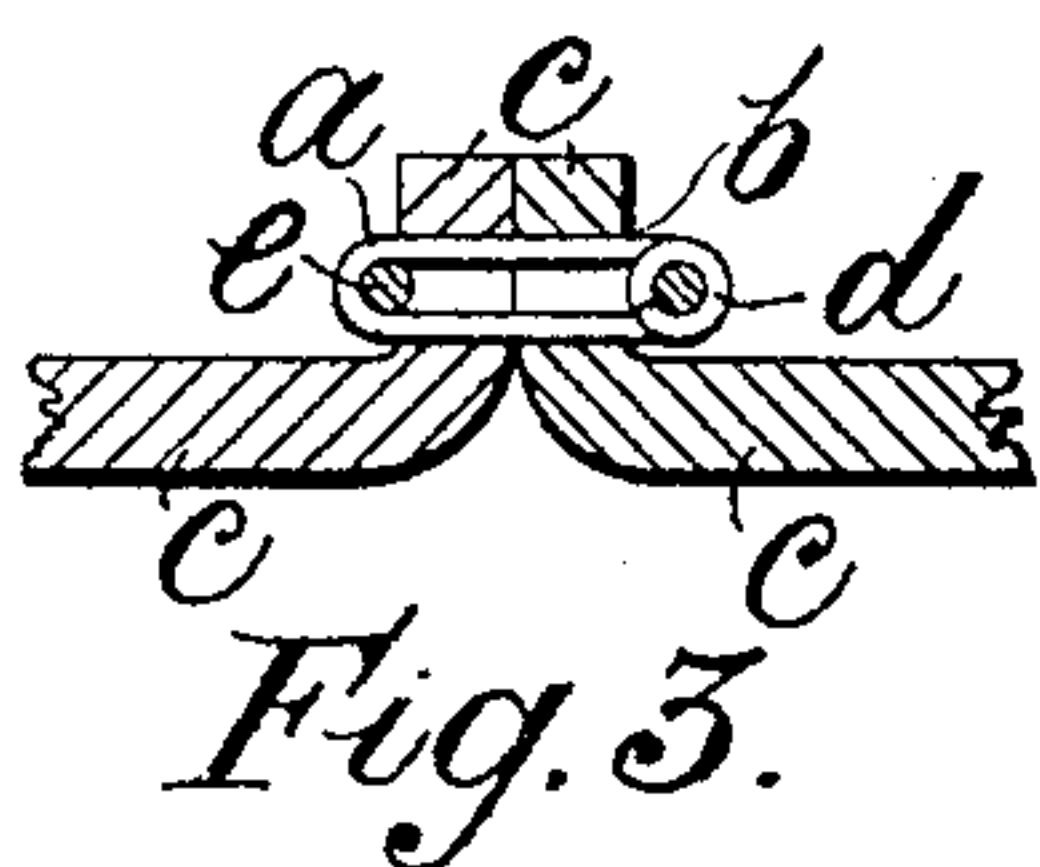
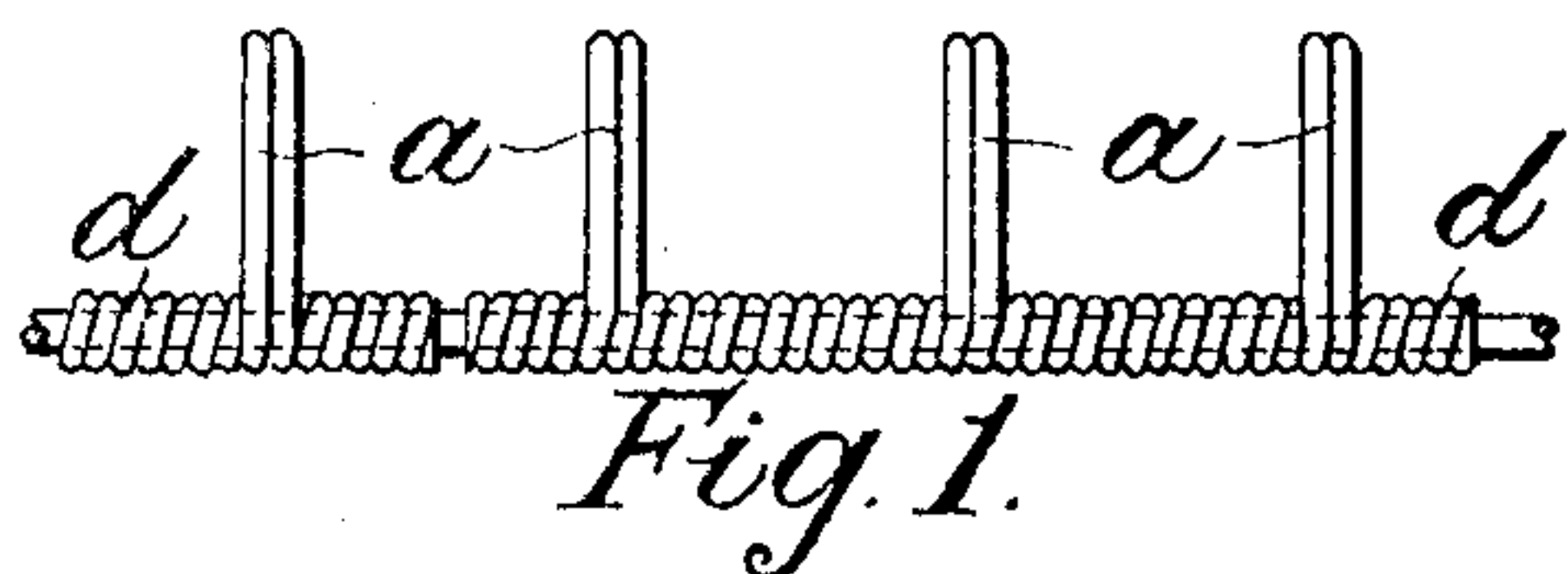


J. H. WOOLLISCROFT.
 BELT FASTENER.
 APPLICATION FILED DEC. 19, 1907.

904,910.

Patented Nov. 24, 1908.



Witnesses.

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UNITED STATES PATENT OFFICE.

JOHN HAROLD WOOLLISCROFT, OF HAWARDEN, NEAR CHESTER, ENGLAND.

BELT-FASTENER.

No. 904,910.

Specification of Letters Patent.

Patented Nov. 24, 1908.

Application filed December 19, 1907. Serial No. 407,148.

To all whom it may concern:

Be it known that I, JOHN HAROLD WOOLLISCROFT, a subject of the King of Great Britain and Ireland, and resident of Hawarden, near Chester, in the county of Chester, England, engineer, and whose post-office address is Mount House, Hawarden, near Chester, have invented a certain new and useful Improvement in Belt-Fasteners, of which the following is a specification.

This invention relates to fasteners or couplings for joining the ends or portions of a driving strap or belt together, the object being to provide a fastener of simple construction made from metal wire, which can be readily secured to or be detached from the belt and which when in position will easily conform to the contour of the driving pulleys round which the belt passes without putting undue strain upon the joint.

My invention will be fully described with reference to the accompanying drawings which show several forms in which it may be carried out. In these,

Figure 1 is a plan of a coiled wire fastener, Fig. 2 end elevation of same, Fig. 3 sectional elevation of a belt joint with fastener in position, Fig. 4 similar view to Fig. 3 showing a double form of the same fastener, Fig. 5 sectional elevation of belt showing the fastener applied to a butt joint. Fig. 6 sectional elevation indicating a modified construction to that shown in Fig. 5.

In carrying out my invention I make a belt fastener principally from metal wire of any suitable cross section, such wire being formed into a plurality of loops separate and independent of each other, adapted to be passed through holes formed in the joining ends of the belt and to be secured thereto by transverse rods of wire, rawhide, twine or other suitable material, the loops in some cases being coiled at one or both ends into spiral form to bed against the belt and assist in resisting the tension on the latter.

In Figs. 1 to 3 *a* indicate loops of wire sufficiently enlongated to pass through holes *b* in the joining ends of the belt *c*. At one end the loops are continued laterally in the

form of a spring-like coil *d*, the length of which and number of loops vary with the belt's width. The loops may be disposed in the center or to one side of the coil and all of them may be struck out from one coil as at the right of Fig. 1, or one, or more of them, may be struck from separate coils as at the left of Fig. 1. After the loops are passed through the belt with the coil *d* against one side of the joint their free ends are secured at the other side by a rod *e* of wire, rawhide or other suitable material. The coil at one side and rod at the other resist, through the belt, the tensional strain in the loops. To add to the stiffness of the coil *d* I may pass through it a rod of a similar character to *e* and particularly when there is a plurality of separate coils.

In Fig. 4 two sets of loops and coils are employed passed through the ends of the belt from opposite directions, the free ends of the loops being coupled by a rod *e* in the center.

In both the examples previously described the ends of the belt are bent into flanges but in Fig. 5 such ends are brought together and a joining strip *f* employed to form a butt joint. The loops *a* are passed through holes *b* in the strip *f* and belt *c* from the outside rods, *e* being employed to keep them in position at their free ends as before. In this case the strip *f* takes the tensional strain. One or more rows of loops may be employed at each side of the joint and the holes *b* for them may be arranged in staggered formation. The rods *e* have a tendency to embed themselves partially or wholly into the belt. The locking-pieces or rods *e* may bear against the belt, or a washer-plate *g* may be interposed between the rod *e* and the belt as shown in Fig. 6.

What I claim is:

1. A belt fastener formed of a single wire coiled spirally and provided with a laterally projecting loop, in combination with a locking-piece which engages with the free end portion of the said loop.

2. A belt fastener formed of a single wire coiled spirally and provided with a series

of laterally projecting loops, in combination with a locking-piece which engages with the free end portions of the said loops.

5 3. A belt fastener formed of a single wire coiled spirally and provided with a series of laterally projecting loops, in combination with a locking-piece which engages with the free end portions of the said loops, and

a stiffening-wire inserted longitudinally through the said coils. 10

In testimony whereof I have hereunto set my hand in the presence of two witnesses.

JOHN HAROLD WOOLLISCROFT.

Witnesses:

W. A. WOOLLISCROFT,
CHARLES E. PARKIN.