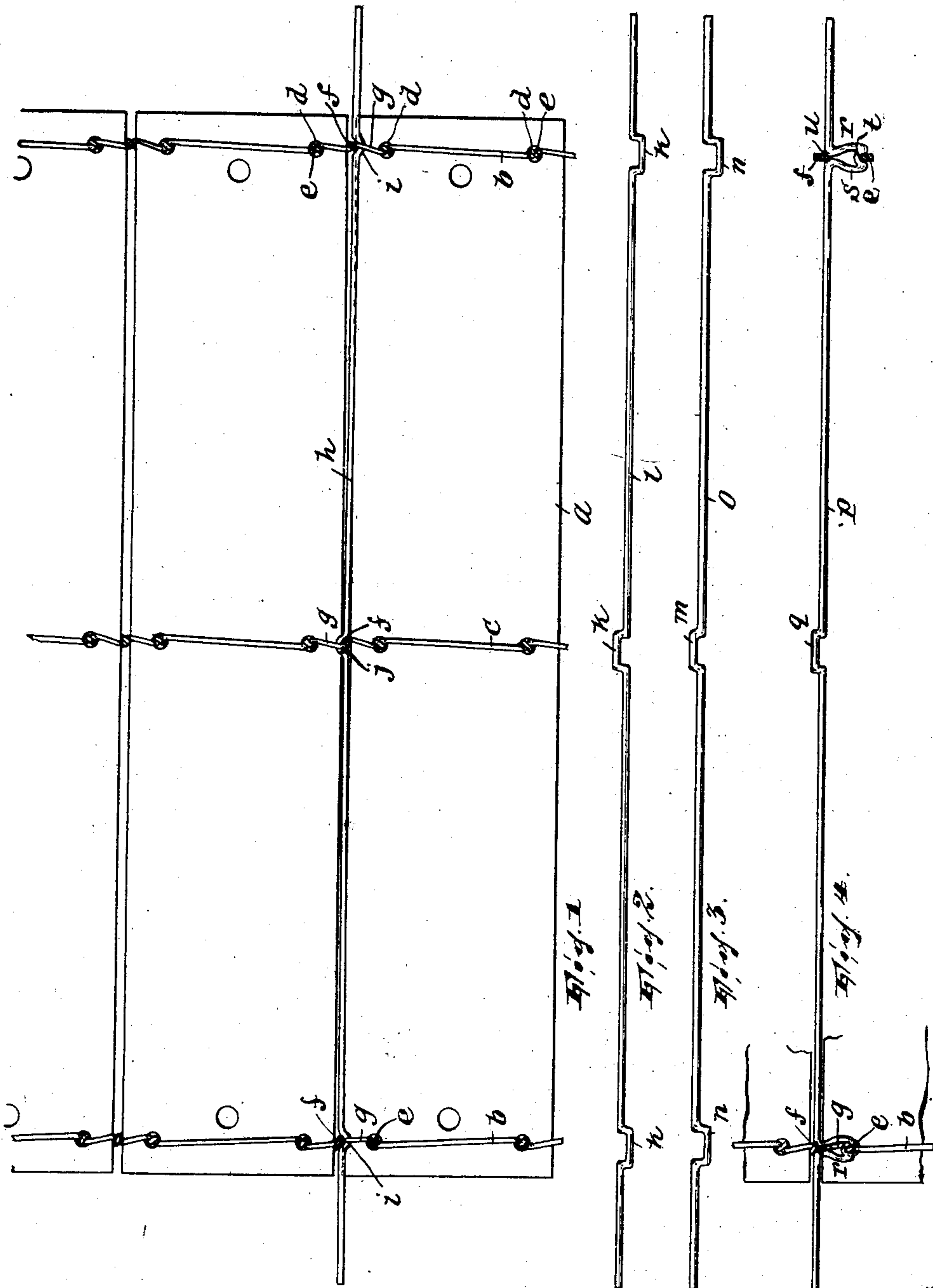


W. COCHRAN.
JACQUARD CARD WIRE.
APPLICATION FILED APR. 4, 1908.

919,321.

Patented Apr. 27, 1909.



WITNESSES

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WILLIAM COCHRAN, OF PATERSON, NEW JERSEY.

JACQUARD-CARD WIRE.

No. 919,321.

Specification of Letters Patent.

Patented April 27, 1909.

Application filed April 4, 1908. Serial No. 425,218.

To all whom it may concern:

Be it known that I, WILLIAM COCHRAN, a citizen of the United States, residing in Paterson, Passaic county, New Jersey, have invented a certain new and useful Improvement in Jacquard-Card Wire; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention relates to jacquard card wires and has for its object to provide a card wire which shall be simple in construction, cheap and easy to manufacture, and which shall also be adapted to secure itself against endwise or other undue movement when properly attached in the cards.

My invention consists in the improved jacquard wire as well as also in the combination thereof with the laced cards.

The invention will be found fully illustrated in the accompanying drawing, wherein,

Figure 1 shows one form of the card wire arranged in proper position with respect to the laced cards; Fig. 2 shows a modified form of the card wire; Fig. 3 shows a card wire somewhat like that shown in Fig. 2 and differing therefrom only in a detail; Fig. 4 shows still another form of the card wire and fragments of two interlaced cards.

Jacquard cards are usually laced together along their ends and at the middle; *a* in the accompanying drawings designates the cards, *b* the outer lacings and *c* the middle lacing. The two cords of each lacing are crossed at the openings *d* near the long edges of the cards and also between the cards, as at *e* and *f*, respectively. Thus between the crossings *e* and *f* loops *g* are left which may receive the card wires; when the wires are thus assembled with the cards I propose that they shall be so constructed as to cooperate with the crossings *f* to prevent undue play of the card wires. To this end, referring first to Fig. 1, a straight piece of wire *h* is formed near its ends with the bends *i* projecting in the same direction and at the middle with the reversely projecting bend *j*. When the card wire is introduced and assembled with the laced cards, as intended, that is, with its ends projecting through the outer loops *g* of one card and the middle loop *g* of the next adjoining card, the bends *i* and *j*

will coact with the crossings *f* of the lacings to prevent endwise movement of the card wires, which by being necessarily curved slightly as the result of this arrangement, will insure the respective bends bearing against the crossings. The wire of course is also restricted against movement transversely thereof. The endwise movement of the wire may be further insured against by making the bends thereof angular in form, as at *k* in the wire *l* in Fig. 2.

In order to reduce the dimension of the wire as much as possible so that the combined elevations of the middle bend and the outer bends will not cause the wire to prevent the cards from being packed closely when being folded, the middle bend *m* may be made less deep, than outer bends *n*, as in the case of the wire *o* in Fig. 3.

In Fig. 4, the wire *p* has the middle bend *q* and the two reversely projecting outer bends *r*; each of these outer bends consists of a loop *s* notched at its outer portion, as at *t*, and closed, as at *u* in the line of the wire proper. In this arrangement the loops *s* of the wire are adapted to lie under the loops *g* of the cords, the notches *t* and *u* receiving the crossings *e* and *f*, respectively.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent is:

1. As an article of manufacture, a jacquard card wire having open bends formed therein to engage the outer and middle card lacings, one of said bends projecting substantially reversely to the other bend, substantially as described.

2. As an article of manufacture, a jacquard card wire having open bends formed therein to engage the outer and middle card lacings, one of said bends projecting substantially reversely to the other bend and having less elevation than the other bend, substantially as described.

3. The combination, with jacquard cards having end and middle lacings, of a card wire having open bends, one near each end, projecting in the same direction, and another bend at the middle projecting in the other direction, said wire being extended through the lacings and having its bends interlocked with the corresponding lacings, substantially as described.

4. The combination, with jacquard cards and several lacings crossed through the cards near their long edges and also between

the cards and thus forming loops between
the crossings, of a card wire having bends,
one near each end, projecting in the same di-
rection, and another bend at the middle pro-
5 jecting in the other direction, said wire being
extended at its ends through the loops in the
outer lacings and on one side of the space be-
tween the cards and through the loop in the
middle lacing at the other side of said space,
10 and having its bends engaged with the corre-

sponding crossings of the lacings, substan-
tially as described.

In testimony that I claim the foregoing, I
have hereunto set my hand this first day of
April 1908.

WILLIAM COCHRAN.

Witnesses:

JOHN W. STEWARD,
WM. D. BELL.