

JOHN DOWNES.

Sheet 1. 2 Sheets.

Improvement in Metallic Bands for Baling Cotton, &c.

No. 120,727.

Patented Nov. 7, 1871.

Fig. 1.

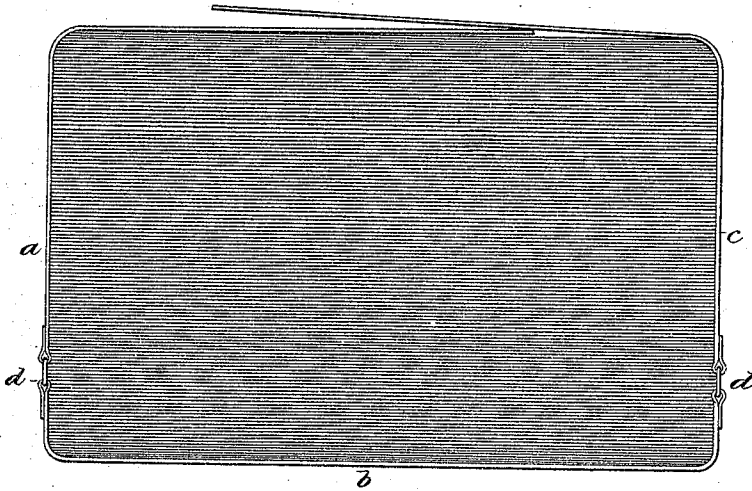


Fig. 2.

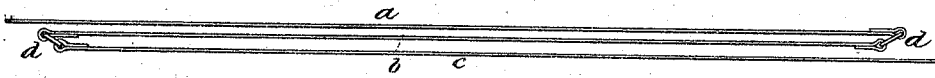


Fig. 3.

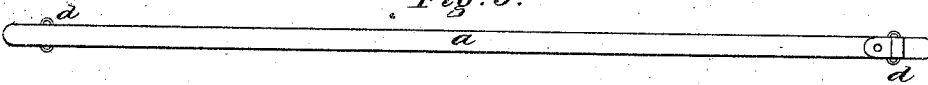


Fig. 4.

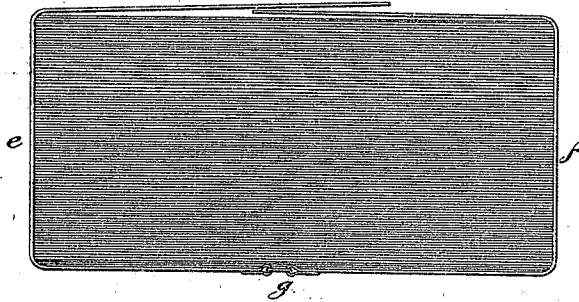


Fig. 5.

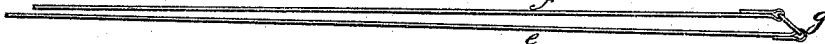
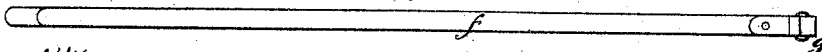


Fig. 6.



Witnesses.

George Shaw.

Richard Merritt.

Inventor.

John Downes.

JOHN DOWNES.

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Fig. 7.

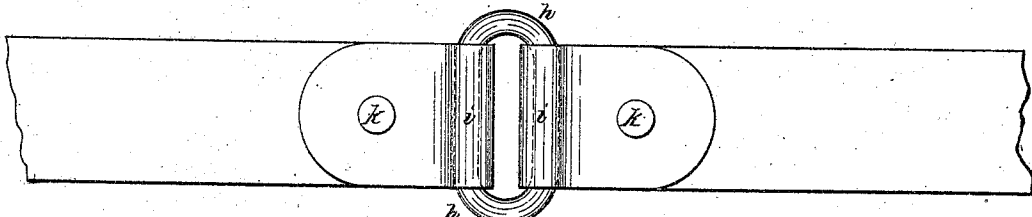


Fig. 8.



Fig. 9.

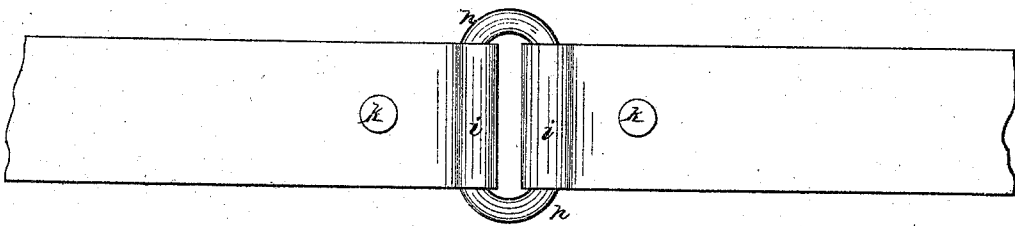


Fig. 10.

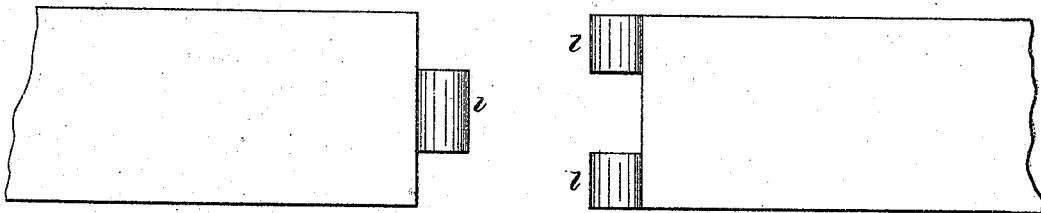


Fig. 11.

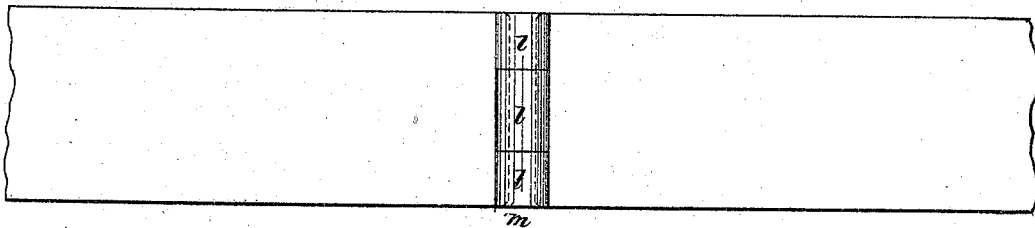
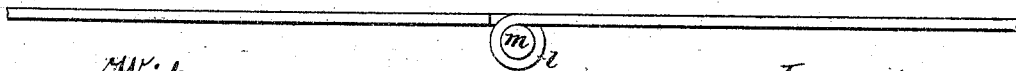


Fig. 12.



Witnesses.

George Shaw.
Richard Sperritt.

Inventor

John Downes

UNITED STATES PATENT OFFICE

JOHN DOWNES, OF HANDSWORTH, ENGLAND.

IMPROVEMENT IN METALLIC BANDS FOR BALING COTTON, &c.

Specification forming part of Letters Patent No. 120,727, dated November 7, 1871.

To all whom it may concern:

Be it known that I, JOHN DOWNES, of Handsworth, in the county of Stafford, England, merchant, a subject of the Queen of Great Britain, have invented or discovered new and useful Improvements in Metallic Hoops or Bands for Baling Cotton, and for other like purposes; and I, the said JOHN DOWNES, do hereby declare the nature of the said invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement thereof—that is to say:

Metallic hoops or bands for baling cotton and for other like purposes, as ordinarily, made consist of continuous strips of hoop-iron of a length sufficient to pass around the bale, leaving the necessary overlapping parts for fastening the hoop or band. My invention consists in making the said hoops or bands of two or more pieces or lengths of hoop-iron hinged or jointed together in the manner hereinafter explained. Hoops or bands made according to my invention are more conveniently packed for transit and occupy less room than ordinary hoops. Further, the facility which my invention affords for using short lengths of hoop-iron permits the hoops or bands to be manufactured more economically than ordinary continuous hoops. In making metallic hoops or bands according to my invention I joint or hinge the pieces or short lengths of hoop-iron together by means of joints of any convenient construction; but I prefer to use a joint made in the following manner: I take a double-branched joint-pin and pass around the branches of the pin, the ends of the strips or pieces to be jointed together, and I make at the overlapping part of each strip an eye or loop to turn freely upon the joint-pin after the manner of the knuckle of a door-hinge. The overlapping parts of each strip being rivetted to the ends of the strips, are jointed together, the jointed parts being capable of moving freely and of lying flat, or nearly so, upon one another, or of opening out to any angle. The hoop or band may be composed of two strips or pieces of the required length, or of more than two strips or pieces.

Figure 1 of the accompanying drawing represents a metallic hoop or band applied to a bale, the said hoop or band being made of three pieces or lengths of hoop-iron, marked, respectively, *a b c*, hinged or jointed together by the joints at *d d*.

Fig. 2 represents in edge view, and Fig. 3 in plan, the jointed metallic hoop or band, Fig. 1, folded flat for transit. Fig. 4 represents a metallic hoop or band applied to a bale, the said hoop or band being made of two pieces or lengths of hoop-iron, marked, respectively, *e f*, hinged or jointed together by the joint *g*. Fig. 5 represents in edge view, and Fig. 6 in plan, the jointed hoop or band, Fig. 4, folded flat for transit. One of the joints of the jointed hoops or bands represented in Figs. 1, 2, 3, 4, 5, and 6 is represented on a larger scale in back elevation in Fig. 7; edge view in Fig. 8; and front elevation in Fig. 9.

In jointing the short pieces or lengths of the hoop or band together I take a double-branched joint-pin, *h*, and pass around the two branches of the said pin the ends of the strips or pieces to be jointed together and form at the overlapping parts eyes or loops *i i*, to turn freely on the joint-pin. The overlapping parts or loops *i i* are riveted at *k* to the ends of the strips or pieces, as illustrated in the drawing. The ends of the strips or short pieces of hoop-iron are thus jointed together, the jointed parts being capable of turning freely on one another and of lying flat, or nearly so, upon one another, or of opening out to any angle.

Although I find that the particular kind of joint represented in the drawing is simple and efficient, yet I do not limit myself thereto, as joints of other constructions may be employed with the same or nearly the same effect; for example, a tie or buckle-frame made of malleable iron, consisting of three parallel bars, two outer bars, and a middle bar may be used. In this case the ends of the short pieces or lengths of hoop-iron are passed around the outer bars of the tie or buckle-frame and the overlapping ends riveted together, as described with respect to Figs. 7, 8, and 9, the outer bars of the frame constituting joint-pins, upon which the jointed ends of the pieces or lengths may turn freely. Or eyes or knuckles may be made on the ends of the pieces or lengths of hoop-iron after the manner of an ordinary hinge-joint, as illustrated in Figs. 10, 11, and 12, Fig. 10 showing the pieces or lengths before they are jointed together, and Figs. 11 and 12 the same after they have been jointed together. The eyes or knuckles on the ends of the pieces or lengths of hoop-iron are marked *l*, and the joint-pin passed through the said eyes or

knuckles after they have been fitted together is marked *m*.

Having described my invention, and the manner in which the same is or may be carried into effect, what I claim, and desire to secure by Letters Patent, is—

As a new article of manufacture, a folding metallic band for baling cotton and like purposes, constructed as herein described, consisting of

two or more sections of hoop-iron hinged together, substantially as shown and set forth, to allow of said sections being folded flat together for transportation.

JOHN DOWNES. [L. S.]

Witnesses:

GEORGE SHAW,

RICHARD SKERRETT,

7 Cannon street, Birmingham.

(7)