No. 626,956. Patented June 13, 1899.

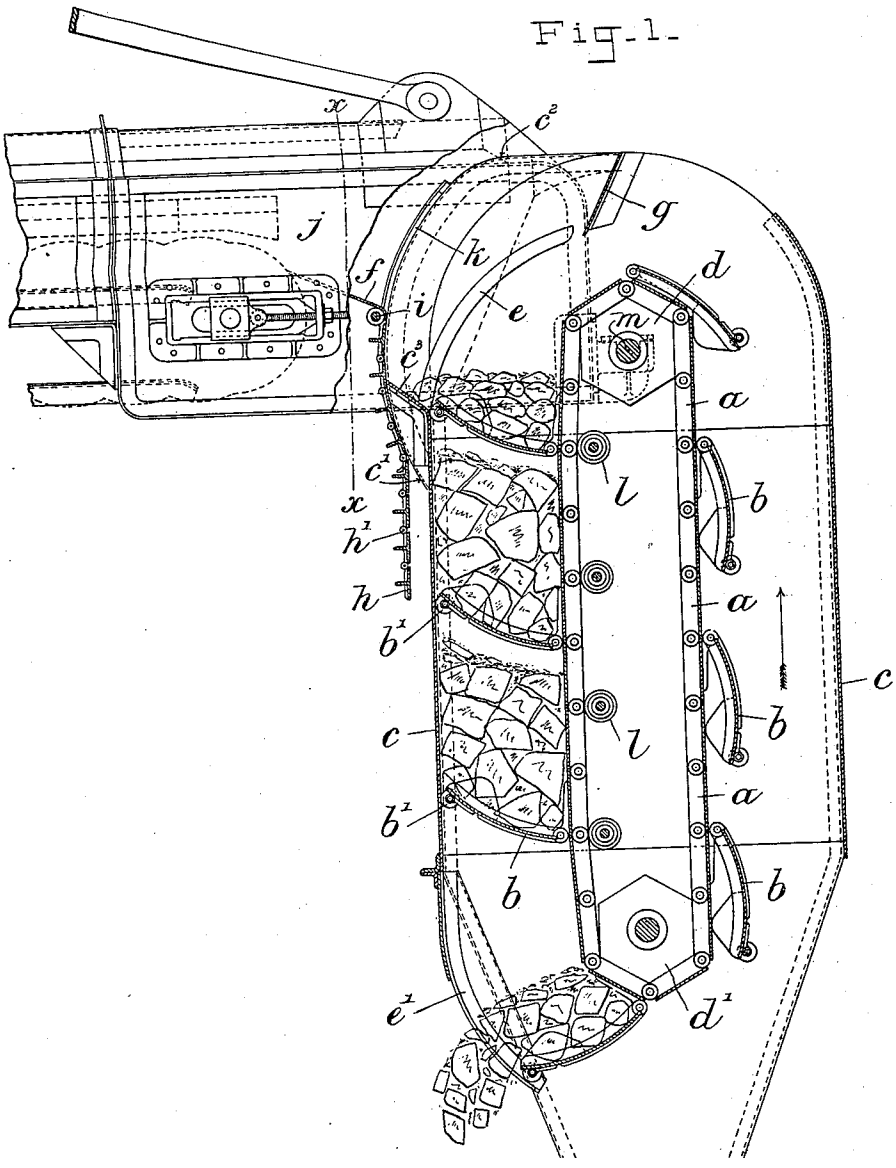
T. WRIGHTSON.

APPARATUS FOR DISCHARGING COAL INTO SHIPS' HOLDS.

(Application filed Feb. 17, 1899.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.



UNITED STATES PATENT OFFICE.

THOMAS WRIGHTSON, OF NEASHAM, ENGLAND.

APPARATUS FOR DISCHARGING COAL INTO SHIPS' HOLDS.

SPECIFICATION forming part of Letters Patent No. 626,956, dated June 13, 1899.

Application filed February 17, 1899. Serial No. 705,803. (No model.)

To all whom it may concern:

Be it known that I, THOMAS WRIGHTSON, a subject of the Queen of Great Britain and Ireland, residing at Neasham, in the county of Durham, England, have invented certain new and useful Improvements in Machinery or Apparatus for Discharging Coal into Ships' Holds or Barges; 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.

This invention relates to machinery or apparatus by which coal or other material is lowered into the hold of a vessel from the point at which it is discharged from the conveyer or chute or endless-belt arrangement by which it is conveyed from the truck or chute on the quay to the opening or hatchway over the hold, and in this respect is adapted to be used as part of the apparatus described in the specification of my Letters Patent No. 612,297 as a substitute for the hanging belt therein described, and illustrated separately in Figure 3. In the hanging belt therein described the trays or shelves vary in their transit in this way. The rate of motion is uniform or the same as the belt when the tray is running straight with the belt; but when the tray is carried around the bight of the belt the motion of the tray becomes radial, like the spoke of a wheel. The motion of the extreme end of the tray is then one of greater speed than that of the inner end of the tray, which is fastened to and moves at the same velocity as the links of the belt, the tendency being for the tray having the radial motion to gain upon the tray in advance which has just received a load of coal or other material and is moving in a straight line again.

Under certain conditions, such as a discharge of coal upon a tray to its full carrying capacity, there is a risk of damage to the apparatus due to the radial, and consequently accelerated, motion of the tray on the curve exerting undue pressure on the coal so charged upon the tray in advance. By my present invention I obviate this difficulty by providing the hanging belt of special construction, which preferably runs in the reverse direction, thereby transferring what may be termed the "carrier" side of the belt from the over side to the near side relatively to the line of descent of the material charged onto the said belt, and thereby reducing the fall of coal in charging each tray. A hanger-belt of this kind requires special provision being made on the charging side, so that the trunk can be drawn or tilted toward that side to any required extent without leaving an opening for the coal to fall outside the trunk. This necessitates the employment of a flexible hood or shutter. With these objects in view I adopt the construction represented in the accompanying drawings, which show the embodiment of my invention in a convenient and practical form, and in order that my invention may be clearly understood and readily carried into effect I will proceed to describe the same with reference to the accompanying drawings, in which the same letters of reference indicate corresponding parts in both the figures.

Fig. 1 illustrates in part sectional view the hanging belt and its connection to the intermediate or jib belt as constructed in accordance with my present invention, corresponding to which Fig. 2 is an enlarged view, taken at right angles to Fig. 1, in transverse section, taken on line *x x* of Fig. 1, and in elevation in respect of the hood and trunk, to illustrate the threading arrangement by which they are connected together, as hereinafter described.

a is an endless belt running as before, but preferably in the reverse direction, as indicated by the arrow, thereby transferring what may be termed the "carrier" side of the belt from the over side to the near side relatively to the line of descent of the material charged onto the said belt. The trays or shelves *b* are hinged to the belt *a* and hang down on the ascending side thereof, but fall over as each passes to the descending or carrier side of the belt and being of a suitable length to reach to the casing or trunk *c* are supported in the position of a tray or shelf, the outer edge of which runs down against the said casing, with which the trays *b* form a close box, down which the coal descends. As the tray falls over the top drum *d* the corners of the tray or the friction-rollers *b'*, which may be attached at the said corners, engage with a curved guide *e*, which prevents the too rapid

No. 626,957. Patented June 13, 1899.

P. W. ZIEGLER.

SIDE STEEL FOR CORSETS.

(Application filed Dec. 21, 1898.)

(No Model.)

Fig: 2.

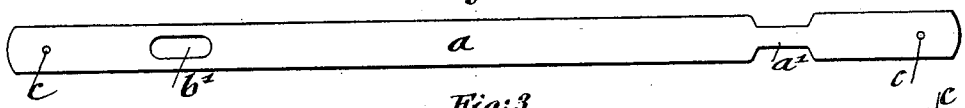


Fig: 3.

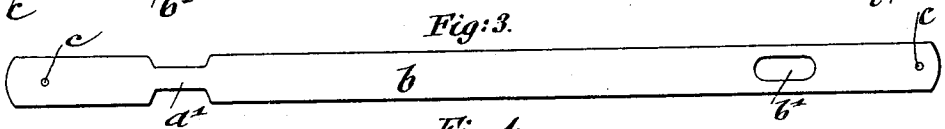


Fig: 4.

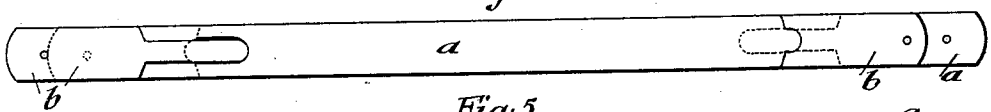


Fig: 5.



Fig: 6.

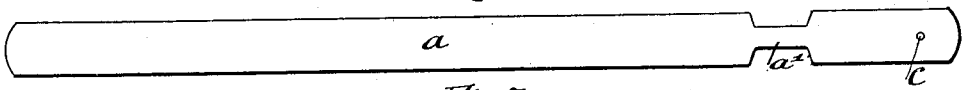


Fig: 7.

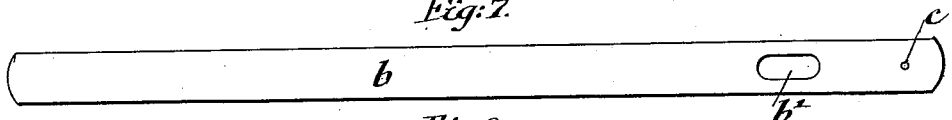


Fig: 8.

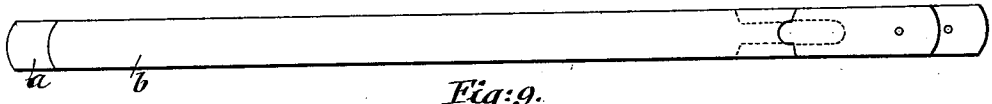


Fig: 9.

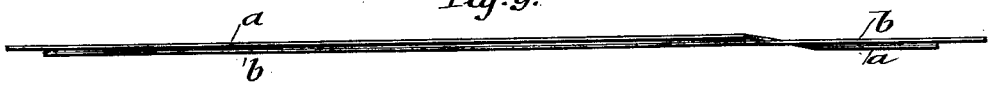
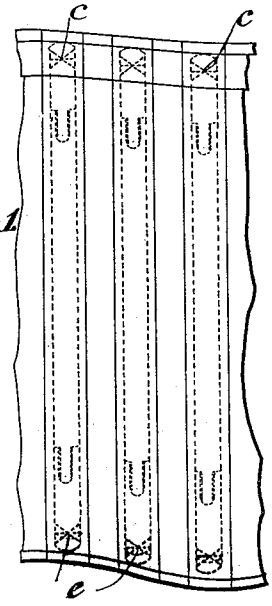


Fig: 1



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