

G. E. & E. D. SCOTT.
SACK HOLDER FOR SACK SEWING MACHINES.
APPLICATION FILED MAR. 15, 1909.

1,006,690.

Patented Oct. 24, 1911.

2 SHEETS—SHEET 1.

Fig. 1

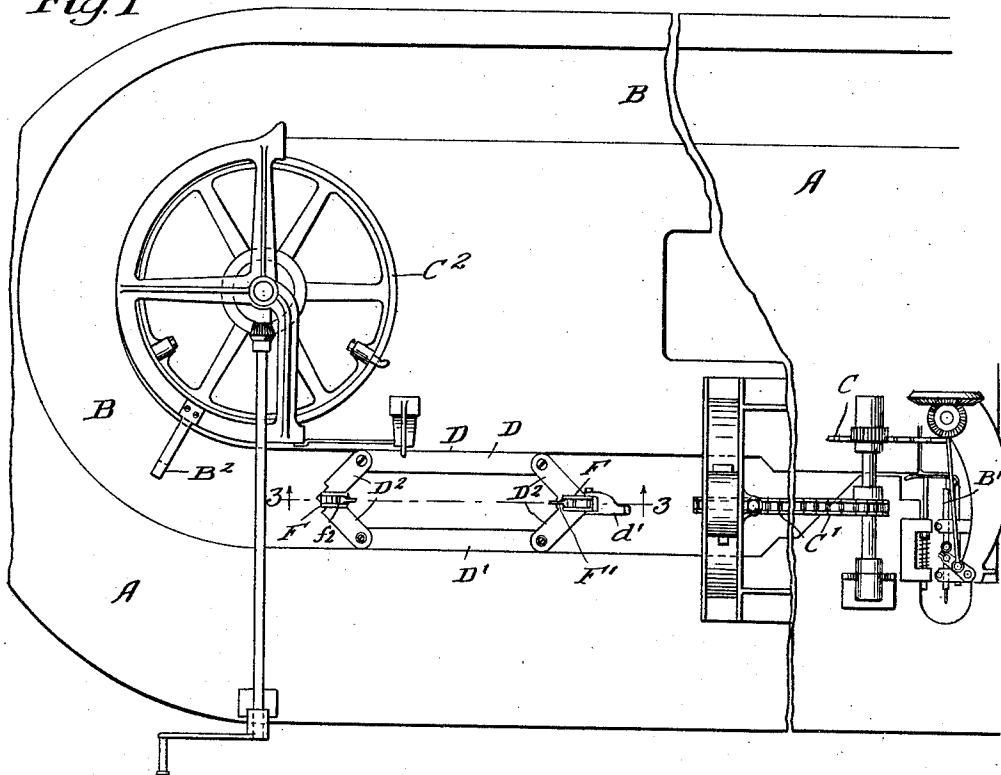
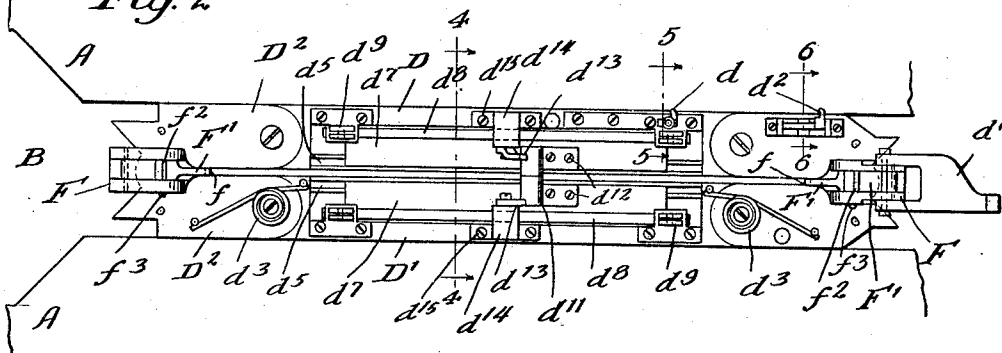


Fig. 2



Witnesses:

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Fig. 3

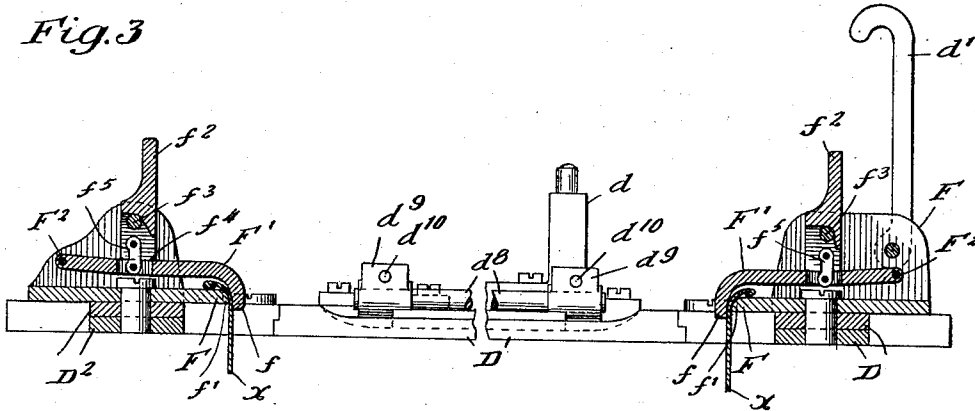


Fig. 4

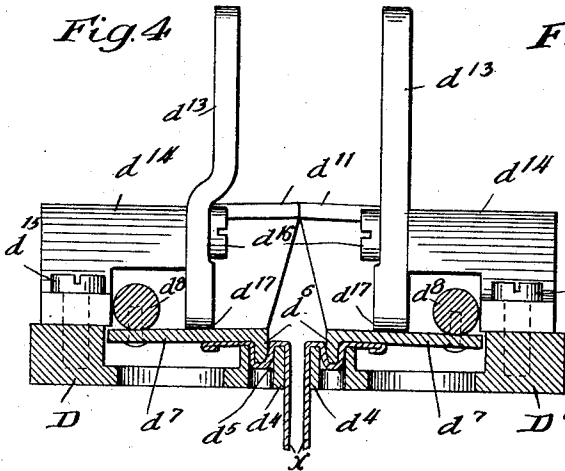


Fig. 5

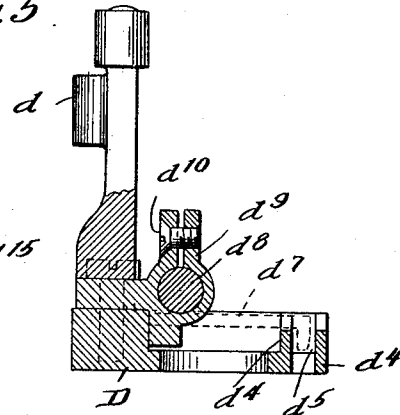


Fig. 6

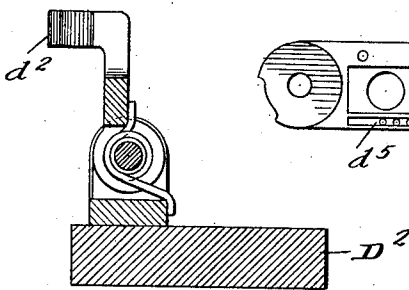
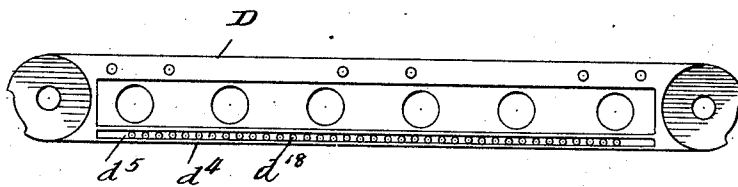


Fig. 7



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UNITED STATES PATENT OFFICE.

GEORGE E. SCOTT AND EDWARD D. SCOTT, OF CHICAGO, ILLINOIS, ASSIGNORS TO TIMEWELL SACK FILLING & SEWING MACHINE COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

SACK-HOLDER FOR SACK-SEWING MACHINES.

1,006,690.

Specification of Letters Patent.

Patented Oct. 24, 1911.

Application filed March 15, 1909. Serial No. 483,383.

To all whom it may concern:

Be it known that we, GEORGE E. SCOTT and EDWARD D. SCOTT, citizens of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Sack-Holders for Sack-Sewing Machines, of which the following is a specification.

Our invention relates to improvements in sack holders for sack sewing machines, and more particularly to improvements in opening and closing sack holders of the kind used in sack sewing machines of the type shown and described in the Arthur Timewell Patents Nos. 539,455, 562,438, 597,075 or 661,091.

The object of our invention is to provide an improved, more efficient and more durable construction of opening and closing sack holders suitable for use in filled sack sewing machines of the Timewell patent type, and which will enable the sacks to be more easily inserted and removed, and more securely held in open or closed position in the holders than is the case in the sack holders heretofore employed in such machines.

Our invention consists in an opening and closing sack holder comprising two long parallel bars and two pair of short hinged bars, one pair at each end of the long bars, all pivotally connected together, the long bars being each provided with double clamping flanges separated by an intervening channel and with a hinged clamp having a single clamping flange fitting in the channel separating the clamping flanges of the bar.

It further consists in connection with the above, in providing the shaft of the movable clamp on each of the clamping bars with a friction bearing to frictionally hold the movable clamp in its open position.

It further consists in providing each of the longitudinal clamping bars of the holder and its hinged clamp with an operating lever for opening it, pivoted on a fulcrum at right angles to the bar so that this lever may be operated to open the clamp by passing under a stationary cam or projection arranged above the path of the bar.

It further consists in providing this operating lever which raises the clamp of the bar with a cam or face for positively locking and holding the clamp in its closed position,

and thus causing the sack to be securely clamped.

It further consists in providing the holder with an operating lever having a cam face which serves to hold these clamps positively and securely closed, the operating levers for these end clamps having also friction bearings to cause the same to frictionally hold such end clamps in their open position to facilitate the insertion of the sack.

It further consists in the novel construction of parts and devices, and in the novel combinations of parts and devices herein shown and described and more particularly specified in the claims.

In the accompanying drawing forming a part of this specification, Figure 1 is a plan view of an opening and closing sack holder embodying our invention, the same also showing a portion of the track upon which the holder travels and a small portion of the sack sewing machine. Fig. 2 is a similar plan view enlarged showing the holder in another position. Fig. 3 is an enlarged detail section on line 3—3 of Fig. 1. Figs. 4, 5, and 6 are enlarged sections on lines 3—3, 4—4, 5—5 and 6—6 respectively of Fig. 2. Fig. 7 is a plan view of one of the side bars.

In the drawing, A represents a portion of the frame of a sack sewing machine similar, for example, to that shown and described in the Timewell Patent No. 661,091 above mentioned, B a portion of the track for the sack holders, C C¹ endless flexible conveyers for the sack holders, C² a conveyer wheel for the sack holders, B¹ the sewing mechanism, and B² cams or projections on the stationary frame for operating the clamps of the sack holders. All these parts may be of any suitable kind or construction, but preferably substantially the same as shown and described in said Timewell Patent No. 661,091.

Our improved opening and closing sack holder for use in such filled sack sewing machines comprises two opposite long side bars D D¹ and four opposite end bars D², all pivoted together. Each of the holders is also provided with one or more hooks or projections *d*, adapted to engage the links of the chain conveyer C which conveys the

sack holder and sack therein past the sewing mechanism and with a hinged hook d^1 adapted to be lifted by the operator into engagement with the chain conveyer C^1 after the sack has been filled while the holder is in its open position. The opening and closing sack holder is also provided with a hook or projection d^2 for engaging the conveyer wheel C^2 . The opening and closing holder is further provided, preferably at two of the pivots connecting one of its long bars with the adjacent short bars D^2 with springs d^3 to open the holder and hold it normally in its open position. In the parts so far mentioned, our improved opening and closing sack holder is all made substantially identical with the construction shown in said Timewell Patent No. 661,091.

The two long parallel holder bars D D^1 are each furnished at their inner edge with two sack holding or clamping parallel flanges d^4 , separated from or forming between them a channel d^5 into which channel the fabric x of the mouth of the sack X is clamped and securely held by the right angle clamping flange d^6 of the hinged clamp d^7 with which each of the holder bars D D^1 is provided. The shaft d^8 of each of the hinged clamps d^7 is journaled in split or friction bearings d^9 on the holder bar D or D^1 , the two members of this split or frictional bearing being clamped together by a screw d^{10} so that the frictional grip of the bearing on the clamp shaft d^8 may be regulated as required to permit the clamps to be readily opened and closed, and still frictionally held certainly and reliably in their open position to facilitate the insertion of the sack mouth therein. Each of the hinged clamps d^7 on the clamp bars D D^1 is also provided with an opening device d^{11} , preferably consisting of an angle plate secured to the hinged clamp by a screw d^{12} , and which opening device is engaged by the operating lever d^{13} of the hinged clamp. The clamp operating lever d^{13} is hinged or fulcrumed to the holder bar D or D^1 by a block or bracket d^{14} secured thereto by a screw d^{15} and by a pivot pin d^{16} extending at right angles to the holder bar D or D^1 and upon which the clamp operating lever d^{13} swings in a vertical plane parallel to the holder bar D . The clamp operating lever d^{13} is further provided at its lower end with a cam face d^{17} which engages the upper face of the hinged clamp d^7 and thus serves to lock and hold the hinged clamp positively in its closed position so as to securely hold the sack therein. As the clamp operating lever swings in a plane parallel to the direction of movement of the holder bar, it may be readily opened by engagement with a stationary pin or projection on the frame of the machine along which the holder bar passes, thus opening the hinged clamp for reception of the sack.

The opening and closing sack holder is further provided at its front and rear ends with two pairs of end clamps F F^1 , each pair preferably comprising a lower stationary member F and an upper movable clamp or member F^1 hinged at F^2 to the lower member F . The upper clamp member has a hook-like clamping lip f which overlaps and engages the clamping projection f^1 of the lower clamp member. The upper or movable clamp F^1 is positively operated or opened and closed by means of an operating lever f^2 pivoted to the lower clamp member F by a pivot pin f^3 and having a cam face f^4 at its lower end which positively engages the upper face of the movable clamp F^1 and holds it positively and securely closed. The operating lever f^2 is connected to the movable clamp F^1 by a connecting link f^5 , so that when this operating lever is turned down into a horizontal position by engagement with the stationary cam or projection on the frame of the machine as the holder is conveyed along the track B , the movable clamp F^1 will be automatically opened in position for receiving the sack between the clamps F F^1 . The clamp F^1 is automatically held in its open position frictionally by friction put upon its trunnion or pivot through the pivot pin f^3 .

The clamping or gripping grooved edge of the bars D D^1 is furnished with perforations d^{18} to permit escape of grain, seed or other articles with which the sacks are filled from obstructing the operation of the clamp d^7 .

We claim:—

1. An opening and closing sack holder for sack sewing machines having a pair of long clamp bars, furnished each with a pair of parallel clamp flanges with a channel between and with a hinged clamp having a flange fitting in said channel, substantially as specified.

2. An opening and closing sack holder for sack sewing machines having a pair of long clamp bars, furnished each with a pair of parallel clamp flanges with a channel between and with a hinged clamp having a flange fitting in said channel, and provided each with an operating arm swinging in the direction of said bar and having a cam engaging the clamp to hold and lock the same positively closed, substantially as specified.

3. An opening and closing sack holder for sack sewing machines having a pair of long clamp bars, furnished each with a pair of parallel clamp flanges with a channel between and with a hinged clamp having a flange fitting in said channel, and provided each with an operating arm swinging in the direction of said bar and having a cam engaging the clamp to hold and lock the same positively closed, each of said hinged clamps having an opening device engaged

by said operating arm to open the clamp, substantially as specified.

4. An opening and closing sack holder for sack sewing machines having a pair of
5 long clamp bars, furnished each with a pair of parallel clamp flanges with a channel between and with a hinged clamp having a flange fitting in said channel, and provided each with an operating arm swinging in the
10 direction of said bar and having a cam engaging the clamp to hold and lock the same positively closed, each of said hinged clamps being provided with an opening device engaged by said operating arm to open the
15 clamp, each of said hinged clamps having a shaft journaled in a frictional bearing to hold the clamp in its open position, substantially as specified.

5. An opening and closing sack holder
20 for sack sewing machines having a pair of long clamp bars, furnished each with a pair of parallel clamp flanges with a channel between and with a hinged clamp having a flange fitting in said channel, the bottom of
25 said channel having perforations therein to prevent grain or obstructions collecting in the channel, substantially as specified.

6. An opening and closing sack holder for sack sewing machines having a pair of long
30 clamp bars, furnished each with a pair of parallel clamp flanges with a channel between and with a hinged clamp having a flange fitting in said channel, and provided each with an operating arm swinging in the
35 direction of said bar and having a cam engaging the clamp to hold and lock the same positively closed, each of said hinged clamps being provided with an opening device engaged by said operating arm to open the
40 clamp, each of said hinged clamps having a shaft journaled in a frictional bearing to hold the clamp in its open position, and said holder having at its front and rear ends
45 pairs of clamps, the movable member of each being provided with an operating lever having a cam face engaging said clamp to positively lock and hold the clamp in its closed position, substantially as specified.

7. An opening and closing sack holder for
50 sack sewing machines having a pair of long clamp bars, furnished each with a pair of parallel clamp flanges with a channel between and with a hinged clamp having a flange fitting in said channel, and provided
55 each with an operating arm swinging in the direction of said bar and having a cam engaging the clamp to hold and lock the same positively closed, each of said hinged clamps being provided with an opening device engaged by said operating arm to open the
60 clamp, each of said hinged clamps having a shaft journaled in a frictional bearing to hold the clamp in its open position, and said holder having at its front and rear ends
65 pairs of clamps, the movable member of each

being provided with an operating lever having a cam face engaging said clamp to positively lock and hold the clamp in its closed position, said last mentioned operating levers having links connecting the same with
70 the movable members of the clamps at the front and rear ends of the holder, substantially as specified.

8. An opening and closing sack holder for sack sewing machines, having a pair of long
75 clamp bars provided each with a hinged clamp, and with an operating lever having a cam face engaging the hinged clamp to lock and hold it positively in its closed position, the pivot of said operating lever being
80 directly above said cam face when the lever is in closed position, substantially as specified.

9. An opening and closing sack holder for sack sewing machines having a pair of long
85 clamp bars provided each with a grooved clamping edge, and provided each with a hinged clamp having a flange fitting in said groove and provided with an operating lever having a cam face engaging the hinged
90 clamp to lock and hold it positively in its closed position, substantially as specified.

10. An opening and closing sack holder for sack sewing machines having a pair of
95 long clamp bars provided each with a hinged clamp, a shaft connecting said hinged clamp with the clamp bar and a split bearing friction device engaging said shaft to hold the clamp in its open position and provided
100 with an operating lever having a cam face engaging the hinged clamp to lock and hold it positively in its closed position, substantially as specified.

11. An opening and closing sack holder for sack sewing machines having a pair of
105 long clamp bars provided each with a hinged clamp, and a friction device for holding the hinged clamp in its open position and provided with an operating lever having a cam face engaging the hinged clamp to lock
110 and hold it positively in its closed position, substantially as specified.

12. An opening and closing sack holder for sack sewing machines having a pair of
115 long clamp bars provided each with a hinged clamp, an operating lever turning on a pivot at right angles to the clamp bar and having a cam engaging the clamp directly under the pivot of said lever to positively lock and hold it in its closed position, substantially
120 as specified.

13. An opening and closing sack holder for sack sewing machines having a pair of
125 long clamp bars provided each with a hinged clamp and an operating lever therefor, said holder having at its front end a stationary clamp, a movable clamp and an operating lever having a cam face engaging the movable clamp directly under the pivot of said
130 lever to positively lock and hold it in its

closed position, and a connecting link between said operating lever and movable clamp to cause the clamp to be automatically opened by the operating lever when it is
5 turned down, substantially as specified.

14. An opening and closing sack holder
10 for sack sewing machines having a pair of long clamp bars provided each with a hinged clamp and an operating lever therefor, said holder having at its front end a stationary clamp, a movable clamp and an operating lever having a cam face engaging the movable clamp directly under the pivot of said

lever to positively lock and hold it in its closed position, a connecting link between
15 said operating lever and movable clamp to cause the clamp to be automatically opened by the operating lever when it is turned down, and a friction device for holding said clamp in its open position, substantially as
20 specified.

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Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."