

Sept. 29, 1931.

J. E. TROUTH

1,824,937

SACK SEVERING DEVICE

Filed Oct. 31, 1930

Fig. 1.

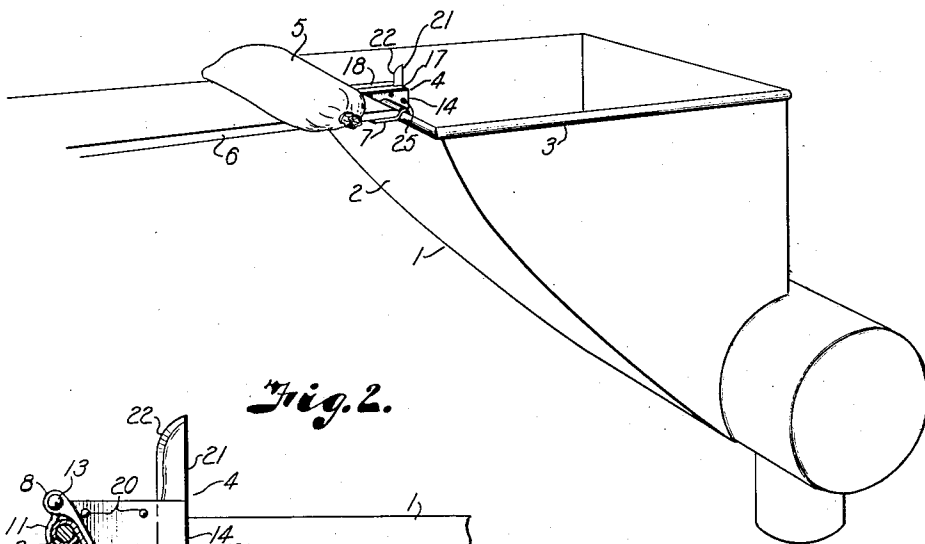


Fig. 2.

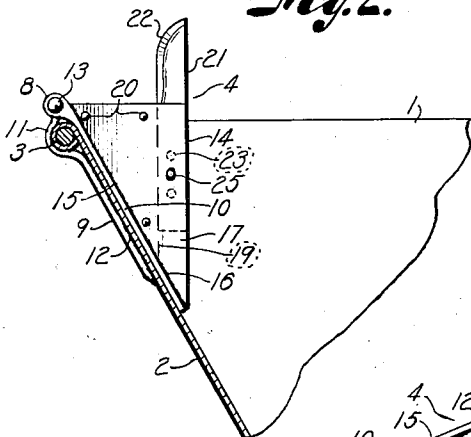


Fig. 3.

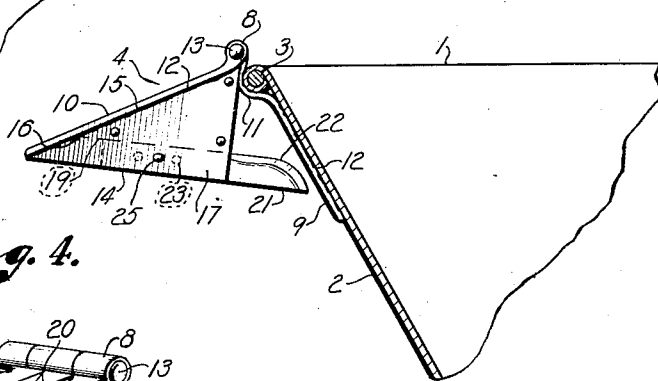
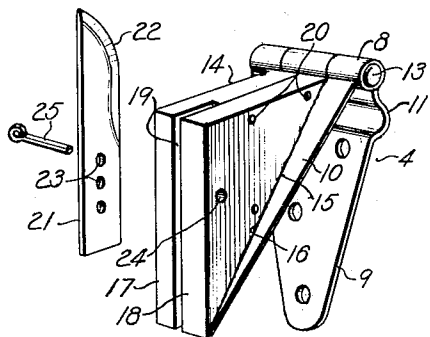


Fig. 4.



INVENTOR
John E. Trouth
BY Arthur C. Brown
ATTORNEY

UNITED STATES PATENT OFFICE

JOHN E. TROUTH, OF OKLAHOMA CITY, OKLAHOMA, ASSIGNOR TO INDEPENDENT OIL WELL CEMENTING COMPANY, OF OKLAHOMA CITY, OKLAHOMA, A CORPORATION OF OKLAHOMA

SACK SEVERING DEVICE

Application filed October 31, 1930. Serial No. 492,453.

My invention relates to cutting mechanism and more particularly to devices of that character for severing sacks containing cement or the like, the principal objects of my invention being to provide a cutter that may be permanently mounted on a mixing hopper and that may be readily moved from a functional to an inoperative position in order to prevent accidental injury to workmen.

A further object of the invention is to embody means in the cutting device for adjustably and removably mounting a cutter blade thereon.

In accomplishing these and other objects of my invention, I have provided improved details of structure the preferred form of which is illustrated in the accompanying drawings, wherein:

Fig. 1 is a perspective view of a cutting device embodying my invention mounted on a hopper, a portion of a platform being shown with a sack mounted thereon and approaching a position to be severed by the cutter.

Fig. 2 is a cross sectional view of a hopper portion illustrating a cutter mechanism secured thereto in functional relation with the hopper.

Fig. 3 is a similar view, showing the support and cutting blade swung to inoperative position.

Fig. 4 is a detail perspective view of the support and hinge, a cutter blade being shown in disassembled relation therewith.

Referring more in detail to the drawings: 1 designates a hopper including an inclined wall 2 and a bead 3 surrounding the upper edge of the hopper.

A cutting device 4 for severing sacks 5 containing cement, or the like, and preferably moved into engagement with the knife along a platform 6 attached to the hopper by hooks 7 mounted over the bead 3, includes a hinge 8 having leaves 9 and 10. The hinge is preferably mounted astride the inclined wall of the hopper, the leaf 9 being bent, as at 11, for receiving the bead of the hopper, and means, such as welding, indicated at 12, being employed for securing the leaf to the outer face of the hopper wall. The opposite leaf 10,

pivotaly connected to the leaf 9 by a pin 13, is adapted to lie adjacent the inner face of the inclined wall of the hopper when in functional position, and a support 14 provided with a complementary inclined wall 15 is preferably secured to the leaf 10 by welding, as indicated at 16.

In the preferred method of structure the support comprises mating triangular plates or blocks 17 and 18, a groove 19 being formed in parallel relation with the vertical edge of the plate 17 to provide a vertical slot when the plates are secured together in any satisfactory manner, for example, by rivets 20 extending through the plates.

A cutter blade 21 adapted to seat in the slot 19 includes a sharpened curved edge 22 and is further provided with a series of openings 23 either of which may be aligned with registering openings 24 in the plates 17 and 18, a cotter pin 25 or the like, being extended through the aligning openings for adjustably mounted the cutter blade in the slot.

Assuming a device to be constructed and secured to a hopper as described, the procedure for severing sacks to empty them of their contents would be as follows:

Sacks containing cement and like materials adapted to be mixed in the hopper are moved along a platform, as shown in Fig. 1, and over the projecting knife, thereby severing the sacks at their approximate centers to quickly discharge the contents therefrom.

When the device is not in use the platform is detached from the hopper, and the support and attached blade are swung on the hinge to inoperative position so that danger of accidental contact with the blade is obviated.

By providing a series of openings in the blade, either of which may be aligned with the corresponding openings in the support, the blade may be readily adjusted according to the size of the bags or sacks to be severed, or, if desired, the blade may be entirely removed from the support.

What I claim and desire to secure by Letters Patent is:

1. In combination with a hopper, a cutting device including a hinge having one leaf

fixed to a side of the hopper, a support fixed to the other leaf, a knife blade, and means for attaching said blade to the support.

2. In combination with a hopper, a cutting device including a hinge having one leaf secured to one side of the hopper, a support fixed to the other leaf and having a slot, and a cutter blade removably mounted in the slot.

3. In combination with a hopper, a cutting device including a hinge having one leaf secured to the outside of the hopper, at its top, a support secured to the other leaf and having a vertical slot, and a cutter blade removably mounted in the slot and adapted to project above said support.

4. In combination with a hopper having an inclined wall, a support having a complementary inclined wall, means for pivotally attaching said support to the wall so that the same can be swung into and out of contact with said wall, a cutter blade, and means for securing said blade to the support.

5. In combination with a hopper having an inclined wall, a support having a complementary inclined wall, a hinge having one leaf secured to the inclined hopper wall and the other leaf secured to the inclined wall of the support whereby said support can be swung into operative position, a cutter blade, and means for securing said blade to the support.

6. In combination with a hopper having an inclined wall, a support having a complementary inclined wall and a vertical slot, a hinge having one leaf secured to the inclined hopper wall and the other leaf adapted to swing into and out of said hopper and being secured to the inclined wall of the support, and a cutter blade mounted in said slot and adapted to project above said support.

7. A cutting device comprising a pair of flat members hingedly united at one end, one of said members having openings there-through for the reception of support attaching means, a triangular support having a blade receiving means carried by said remaining flat member, and a cutter blade located in said blade receiving means.

8. A sack severing device comprising the combination with a hopper of a pair of hinged members, means for securing one of said members to said hopper at its top so that the remaining member may swing into said hopper and rest against the inside thereof, a support secured to said last mentioned member, and a cutter blade adjustably mounted in said support, said cutter blade projecting above the top edge of the hopper when the member carrying the support is on the inside of the hopper.

In testimony whereof I affix my signature.

JOHN E. TROUTH.