Barfholdt J. Dreeson and James L. Buskett.

Improvement in Cotton Pickers.

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Fig. 3.

Fig. 4.

Fig. 1.

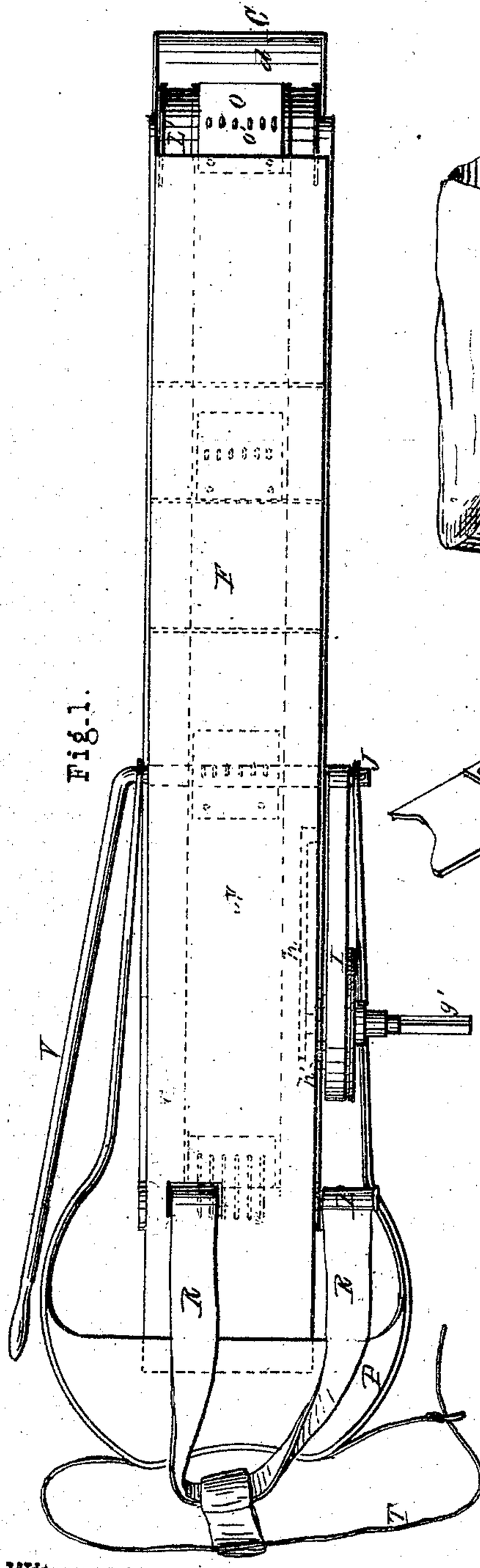

Fig. 2.

Witnesses.

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UNITED STATES PATENT OFFICE.

BARTHOLDT J. DREESON, OF SCHLESWIG, GERMANY, AND JAMES L. BUSKETT, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN COTTON-PICKERS.

Specification forming part of Letters Patent No. 116,694, dated July 4, 1871.

To all whom it may concern:

Be it known that we, BARTHOLDT J. DREESON, of Schleswig, Germany, and JAMES L. BUSKETT, of St. Louis, in the county of St. Louis and in the State of Missouri, have invented new and useful Improvements in Cotton-Pickers; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification, in which drawing—

Figure 1 represents a top-plan view of my device; Fig. 2, a side elevation of the same, a portion of the side covering being removed to give a better view of the interior. Fig. 3 is a representation of the sack employed; and Fig. 4, an enlarged view of the picker-teeth, the plate to which they are attached, and a portion of the belt.

Like letters designate corresponding parts in each figure.

In the process of picking cotton by machinery it is desirable to use both hands in the direction of the implement employed, and in keeping it in good working order, which cannot be well done except by the application of some permanently-connected motive power. It is essential that the implement shall be light, compact, and simple in its mechanism, otherwise it will not be effective in use; and it is important that it should perform its work without undue labor on the part of the operator.

The object we have in view is the construction of a device which shall conform to the above conditions; and our invention therein consists in the construction of the shell composed of the frame which supports the working mechanism and its casing; in the manner in which the frame is pivoted to the shield; in the means employed for directing the machine; and in the combinations and arrangements of its various operative parts, all as more fully hereinafter described, explained, and set forth.

In the drawing, A represents the side pieces and main supports of the frame, which are made preferably of wrought metal, with rear ends *a* turned upward and backward at an angle of about forty-five degrees, and rising to the top of the casing, hereafter described, and front ends *a'*, which curve outward and upward to a point about half-way to said casing. The upper edge of these side pieces is perforated with a series of holes, *b*, for the purpose of securing thereto the sides of the casing, hereafter mentioned, and the lower edges are provided, at a point about one-third of the distance between the rear and front ends of said side pieces, with dependent ears *d*, provided with circular openings *c'*. These side pieces are connected and held in place at the bottom by cross-bars B, and by a catch-box, C, of suitable sheet metal, which is interposed between the front ends *a'*, and by a rod, D, which passes through and holds the extreme ends *a* of said side pieces. The catch-box C, before mentioned, extends in a circular form in front and below the ends *a'*, having a rectangular top and front opening, *d*, and a flat bottom. From the front ends *a'* a yoke, E, rises, with standards nearly perpendicular, and a flat top which is connected with and supports the top casing F. This casing is composed of light sheet metal, and is supported at its front end by the yoke E, just named, and at a point near its rear end by the rod D, and has dependent side flanges *e* provided with a series of holes, *e'*, for the purpose of attaching thereto the side casings. The rear end of this top casing *f* is extended backward and downward to serve as a deflector to the cotton passing under it. The sides G of the casing are of cloth, and are attached to the side pieces A and the top casing by means of thread or twine passed through the holes *b* and *e* and around the standard of the yoke E. A shaft, H, having a guard-ring, *g*, and an outer squared end, *g'*, passes through and turns in one of the side pieces A, near its rear lower corners, and in a brace, *h*, extending from the inner side of that side piece a sufficient distance to the rear. Upon this shaft, and between it and said side piece, is coiled a spiral spring, I, the inner end of which is secured to said shaft, and the outer end to a rod, J, which passes through the holes *c'* in the ears *c*. Upon the same shaft, and inside of side said pieces A, is a cog-wheel, *h'*, connected wherewith is a suitable spring-pawl, and a ratchet-wheel, *h''*, which engages with a pinion upon the shaft K, which turns in both of the side pieces A. Upon this shaft last named, and turning with it, is the rear belt-drum L. A suitable brake, M, pivoted to the inside of one of the side pieces A, has a face which engages with the teeth of the ratchet-wheel *h''*, and serves to control the movement of the clock-work just named. A belt-drum, L', is pivoted between the tops of the front ends

a' of the side pieces, and, in connection with the drum L, gives motion to the endless belt N which passes over and around them. Upon this belt are secured, at suitable distances asunder, picker-plates O, provided with picker-teeth O', the plates being of suitable sheet or cast metal, of the same width as the belt, and secured thereto by means of rivets or other suitable fastening on the edge next the operator when the teeth are approaching him, and the teeth being placed upon such plates at uniform distances apart. The picker-teeth are constructed of suitable wire, with their lower halves thrust through the picker-plates, bent up against the bottoms of the same to the rear, and there secured in place, and with their upper halves bent at right angles and rising perpendicularly, and their extreme sharp points *i* bent forward a little. The shield P, made of suitable light sheet metal, in the form portrayed in Fig. 2, has a supporting-flange, *j*, secured to its lower edge, the front ends *j'* of which flange extend forward and are pivoted upon the rod J. The lower edge of this flange is also provided with a series of holes, *k*, by means of which the sack Q is attached to said shield. This sack is made open at the bottom, and one of its sides is provided with a flap, *l*, which turns up over and covers the bottom, and is fastened with a button or other suitable means. Suitable straps R, attached to the rod D and passing around the neck of the operator, are connected by a tie-strap, S, to the body-strap T, which is fastened to the lower part of the shield. A strap, U, attached to the upper part of said shield is an additional contrivance by which the machine is fastened to the body of the operator, and a guide-rod, V, which may be a portion of the rod J, with a handle extending toward and conveniently near the operator, completes the entire description of our device.

In the operation of our device, the operator having the same attached to his person as described, and having wound up the spring, which, without inconvenient weight, may serve to run the belt from one to two hours, has both hands at liberty to direct the machine against the bolls of cotton in the field, the front edge of the catch-box touching the same. The belt, which should be running at pretty high speed, carries the picker-teeth into the cotton in the boll below the seeds, which cannot pass through the spaces between said teeth, and the cotton is thereby plucked from the boll, carried along on the belt toward the operator, pressed downward by the deflector, and by the speed of the belt, and on account of the peculiar shape of the teeth, is thrown off from them and falls into the sack.

The frame-work and casing combine sufficient strength with extreme lightness, and the manner of pivoting the same upon the shield so as to be nearly upon an equipoise throws the weight near the body of the operator, where it is more easily carried, while this same pivoting permits an easy vertical motion of the outer end without requiring a corresponding bending of the body. In the operation of picking, also, the teeth pick upward, and this part of the process is always in full view of the operator. The contents of the sack, when filled, may be readily emptied into a basket without taking off the machine or removing the bag.

Having thus fully described our device, its mode of operation, and the advantages of its construction, what we claim as new therein is—

1. The combination of the frame A B E D and the casing composed of the sheet-metal top F and the cloth sides G, all constructed, arranged, and connected together substantially as described and shown.

2. The combination of the frame A B E D and the shield P, pivoted on the rod J, for the purpose of pivoting said frame nearly at equipoise upon said shield, substantially as described and shown.

3. The arrangement of the guide-rod V, in connection with the frame A B E D and the pivoted shield P, for the purpose of directing the machine, substantially as described and shown.

4. The pivoted shield P provided with straps S, T, and W, combined with the frame A B E D provided with the straps R, constructed, arranged, and operated substantially as described and shown.

In testimony that we claim the foregoing we have hereunto set our hands this 19th day of April, 1871.

BARTHOLDT J. DREESON.
JAMES L. BUSKETT.

Witnesses:
ALEXANDER LOWRY,
JOHN DOUGLAS.