

(No Model.)

3 Sheets—Sheet 1.

C. B. STILWELL.
PAPER BAG MACHINERY.

No. 413,634.

Patented Oct. 22, 1889.

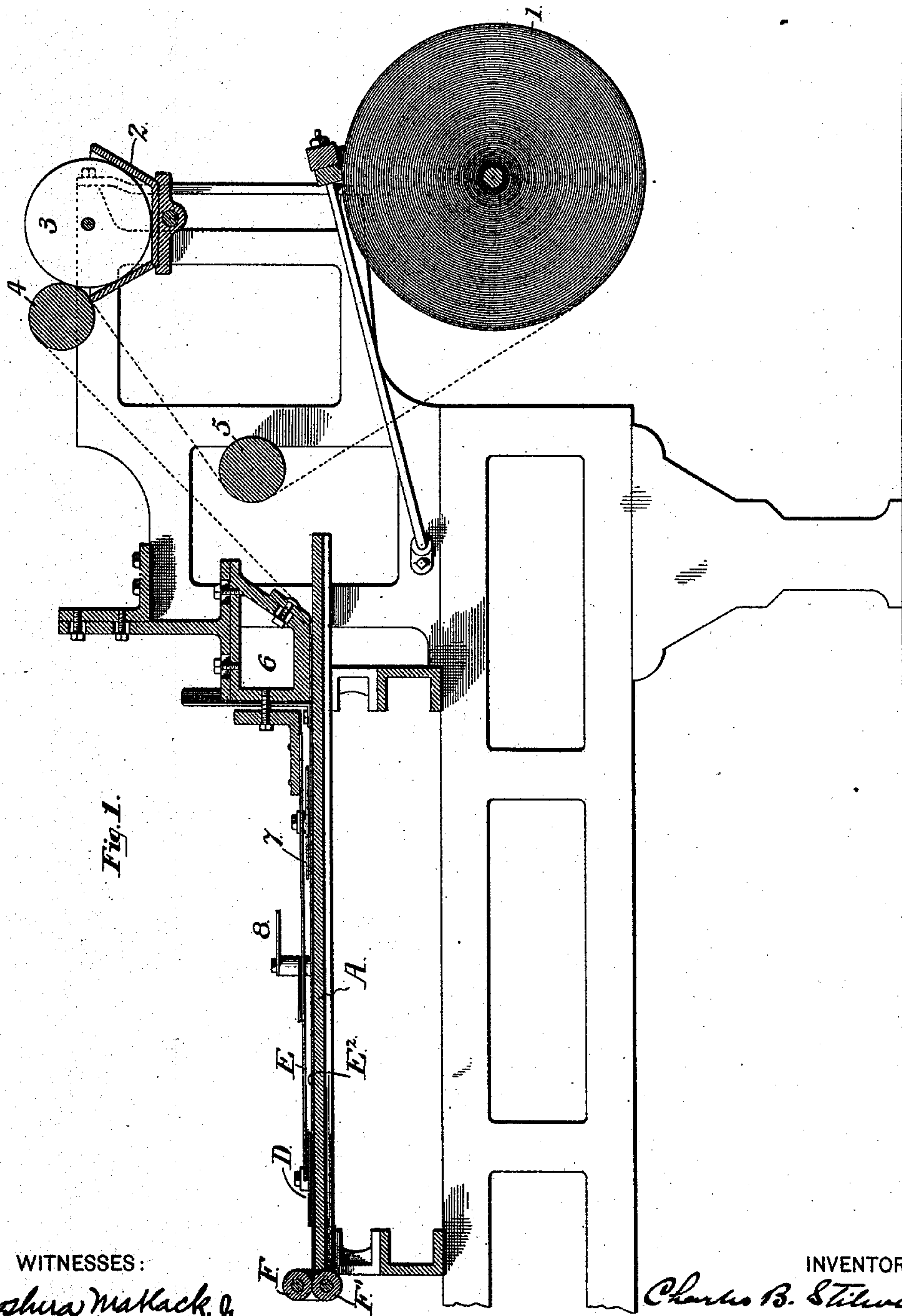


Fig. 1.

WITNESSES:

Joshua M. Kack, Jr.
A. E. Paige.

INVENTOR

Charles B. Stilwell
by his attorney
Francis T. Chambers

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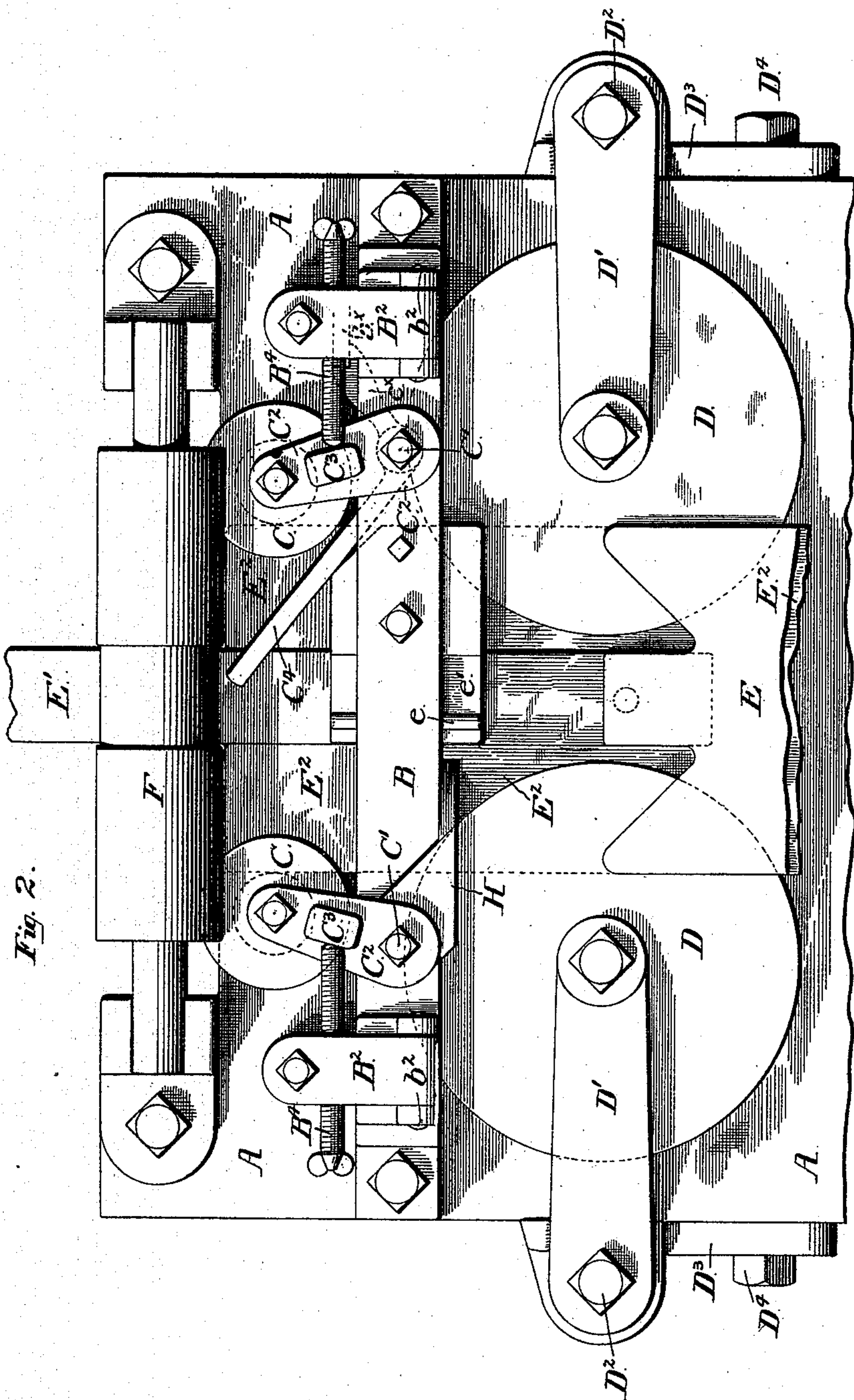


Fig. 2.

WITNESSES:

Joshua Matlack, Jr.
A. E. Paige.

INVENTOR

Charles B. Stilwell
by his attorney
Frederic T. Chamberlain

(No Model.)

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Fig. 5.



Fig. 3.

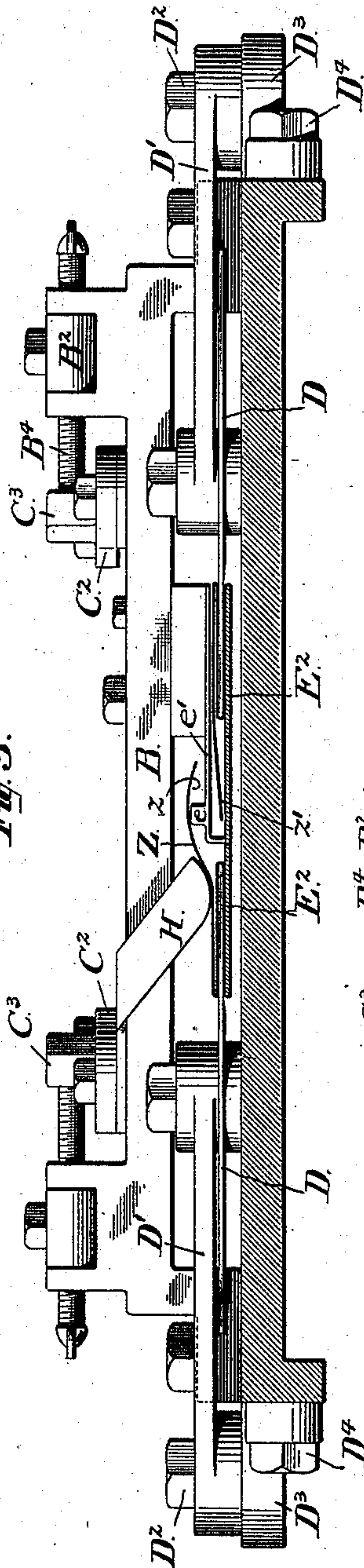
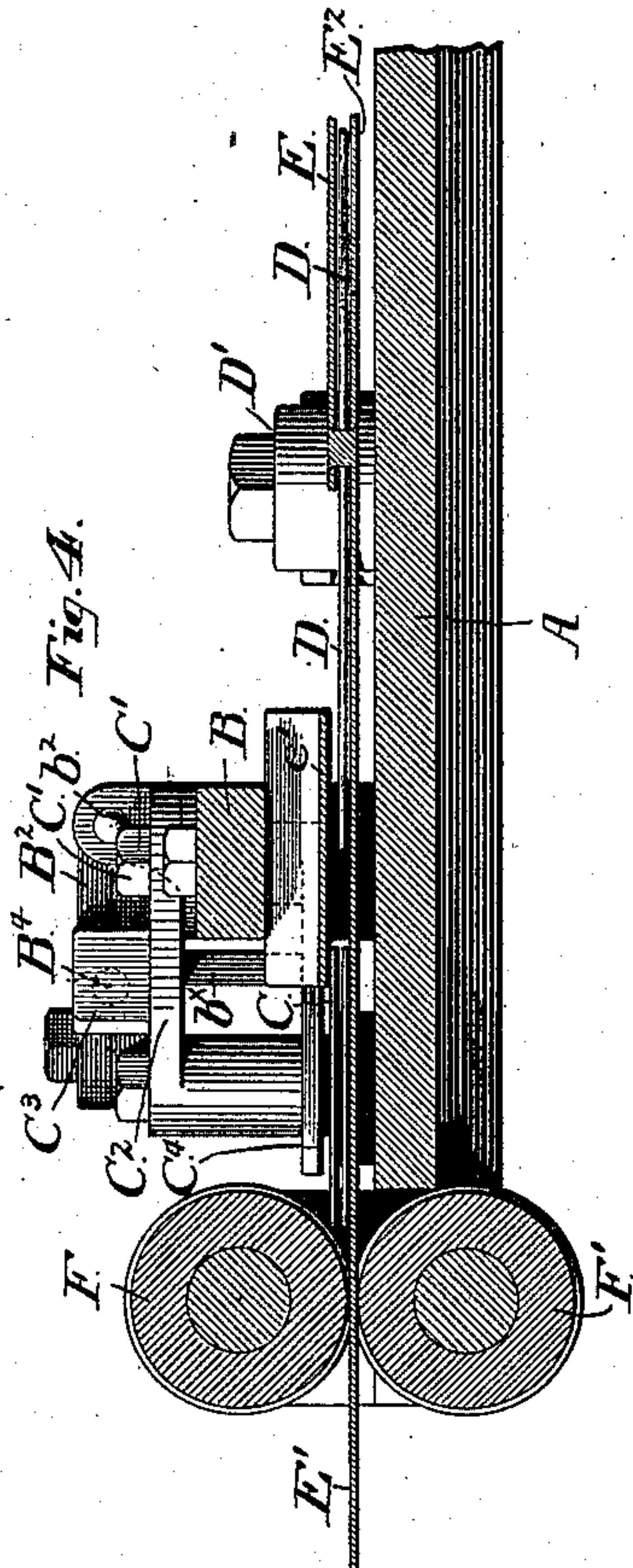


Fig. 4.



WITNESSES:

Joshua M. Lack, Jr.
A. E. Page.

INVENTOR

Charles B. Stilwell
by his attorney
Framis T. Chamberlain

UNITED STATES PATENT OFFICE.

CHARLES B. STILWELL, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO
THE UNION PAPER BAG MACHINE COMPANY, OF SAME PLACE.

PAPER-BAG MACHINERY.

SPECIFICATION forming part of Letters Patent No. 413,634, dated October 22, 1889.

• Application filed July 5, 1889. Serial No. 316,548. (No model.)

To all whom it may concern:

Be it known that I, CHARLES B. STILWELL, of the city and county of Philadelphia, State of Pennsylvania, have invented new and useful Paper-Bag Machinery, of which the following is a true and exact description, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to the construction of that part of a paper-bag machine in which a web of paper is folded into a bellows-sided tube preparatory to being cut into bag-blanks; and my object is to provide improved devices whereby the alignment of the edges of the tube may be made more perfect and all injurious strains on the paper avoided.

The novel features of my invention will be best understood after a description of the drawings, in which they are illustrated, and they will be clearly pointed out in the claims.

Reference is now had to the drawings which illustrate my invention, and in which—

Figure 1 is a side elevation of those portions of a bag-machine to which my improvements are applied; Fig. 2, a plan view showing my new devices; Fig. 3, a side elevation of the same; Fig. 4, a central longitudinal section thereof, and Fig. 5 a section through the folded tube.

Referring first to Fig. 1, which, as aforesaid, shows those portions of a bag-machine to which my improvements are applicable, but in which I have not shown the novel combinations of mechanism which I desire to claim in this patent because of the small scale of the drawings, 1 is a roll of paper; 2, the paste-trough; 3, the paste-roll; 4 and 5, guide-rolls; 6, the standard to which the former-plates E E^2 are secured; 7, guide-wheels, and 8 guide-fingers, all of which are of the usual well-known kind. The aligning-wheels D and presser-rolls F F' are also devices in common use; but in some features of construction and in combination with parts hereinafter described and illustrated in the other figures of the drawings they form a part of my present invention.

As is clearly shown in Figs. 2, 3, and 4, the upper former E terminates some distance in front of the presser-rolls F F' , while the lower

former E^2 extends forward to and beyond said rolls, as is shown at E' .

D D are aligning-wheels situated just in front of the end of former-plate E and journaled in arms D' , which are adjustably secured to the arms D^3 by screws D^2 , and these arms D^3 are pivoted at D^4 to the frame A . The wheels D pass between the folded sides of the tube Z , Fig. 5, and their edges rest against the folds z^2 z^2 and insure their being properly aligned, and they can be swung outward on screws D^2 or upward on pivots D^4 , so as to remove them from the path of the paper when it is desirable.

In front of wheels D a bridge B is secured across the former and tube path, and to this bridge are pivoted arms C^2 , upon which double-flanged aligning-wheels C are journaled in such position that their edges will rest against the top folds z^3 z^3 of the tube, while their flanges extend inward above and below said folds. These wheels C are adjusted and held in proper position by set-screws B^4 , which work in blocks B^2 , said blocks being pivoted to bridge B at b^2 , so that they and the screws can be thrown upward and the pivoted supporting-links C^2 thrown back out of the path of the tube whenever it is necessary.

C^3 is a lug on link C^2 , against which the end of screw B^4 rests.

e' is a plate secured beneath bridge B , so as to extend out over edge z' and beneath edge z of the paper, a ridge e being formed on said plate to rest against edge z inside of the line of paste, so as to hold the edge out of contact with the lower edge z while the folds are being aligned by the wheels D and C .

H is a finger depending from bridge B and serving to keep the top edge z in approximately correct line while the wheels D and C are operating upon it.

C^4 is a finger lying normally, as shown in Fig. 2, and serving to prevent the top edge of the paper from rising up as it passes beneath the presser-rolls F F' , between which rolls an extension E' of the lower former extends.

The operation of my improved mechanism has been sufficiently explained in describing its parts, and I need only say that by its means I am enabled to produce a tucked tube

more accurately folded than has heretofore generally been the case, and that by reason of its described construction the aligning-wheels are easily thrown back out of the path
5 of the paper when a new web is adjusted or it is necessary to overhaul one in process of formation.

Having now described my invention, what I claim as new, and desire to secure by Letters
10 Patent, is—

1. In a paper-bag machine, the double-flanged aligning-wheels C, in combination with pivoted supports, adjusting-screws B⁴, and pivoted screw-blocks B², substantially as
15 and for the purpose specified.

2. In a paper-bag machine, the combination, with former-plates E E², of aligning-wheels D, arranged to engage the inwardly-tucked sides of a tube, double-flanged aligning-wheels
20 C, arranged to rest against the upper edges of the tube with their flanges embracing the same, a pivoted support for the double-flanged aligning-wheels, an adjusting-screw B⁴, and a pivoted support B² for said screw, substantially as and for the purpose specified.
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3. In a paper-bag machine, the combination, with former-plates E E², of aligning-wheels D, arranged to engage the inwardly-tucked sides of a tube, double-flanged aligning-wheels C, arranged to rest against the upper
30 edges of the tube with their flanges embracing the same, a pivoted support for the double-flanged aligning-wheels, an adjusting-screw B⁴, a pivoted support B² for said screw, a plate e', having a ridge e to keep the pasted
35

edge of the paper out of contact with the lower ply while the tube is being aligned by the wheels D C, and presser-rolls F F', situated in advance of the aligning-wheels, substantially as and for the purpose specified. 40

4. In a paper-bag machine, the combination, with former-plates E E², of aligning-wheels D, arranged to engage the inwardly-tucked sides of a tube, double-flanged aligning-wheels C, arranged to rest against the upper
45 edges of the tube with their flanges embracing the same, a pivoted support for the double-flanged aligning-wheels, an adjusting-screw B⁴, a pivoted support B² for said screw, a plate e', having a ridge e to keep the pasted
50 edge of the paper out of contact with the lower ply while the tube is being aligned by the wheels D C, a finger H, arranged to hold the upper lip of the tube in approximately correct position while it is passing over ridge e,
55 and presser-rolls F F', situated in advance of the aligning-wheels, substantially as and for the purpose specified.

5. In a paper-bag machine, aligning-rolls D, adapted to pass between the folded sides
60 of the tube, in combination with supporting-arms D' and arms D³, screws D², securing arms D' and D³ together, and pivots D⁴, securing arms D³ to the frame, substantially as and for the purpose specified.

CHARLES B. STILWELL.

Witnesses:

LEWIS R. DICK,

FRANCIS T. CHAMBERS.