

(No Model.)

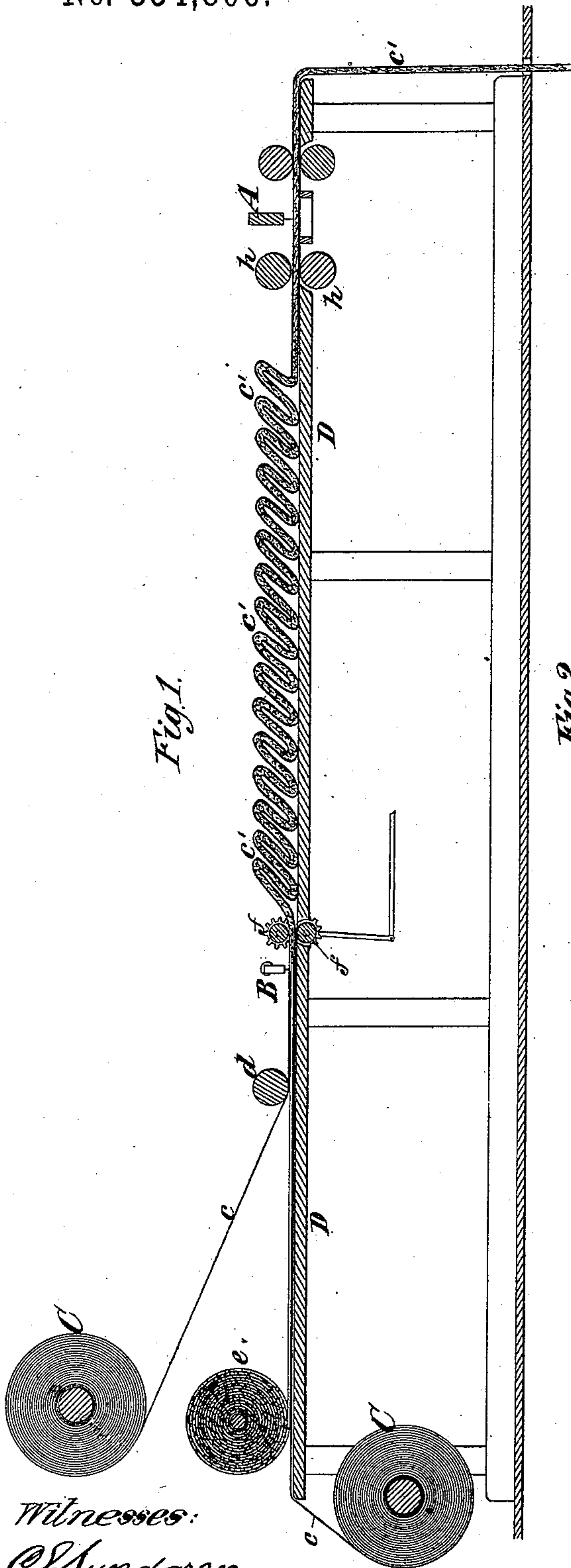
F. L. PALMER.

METHOD OF MAKING COMFORTABLES FROM CONTINUOUS FABRIC.

No. 354,806.

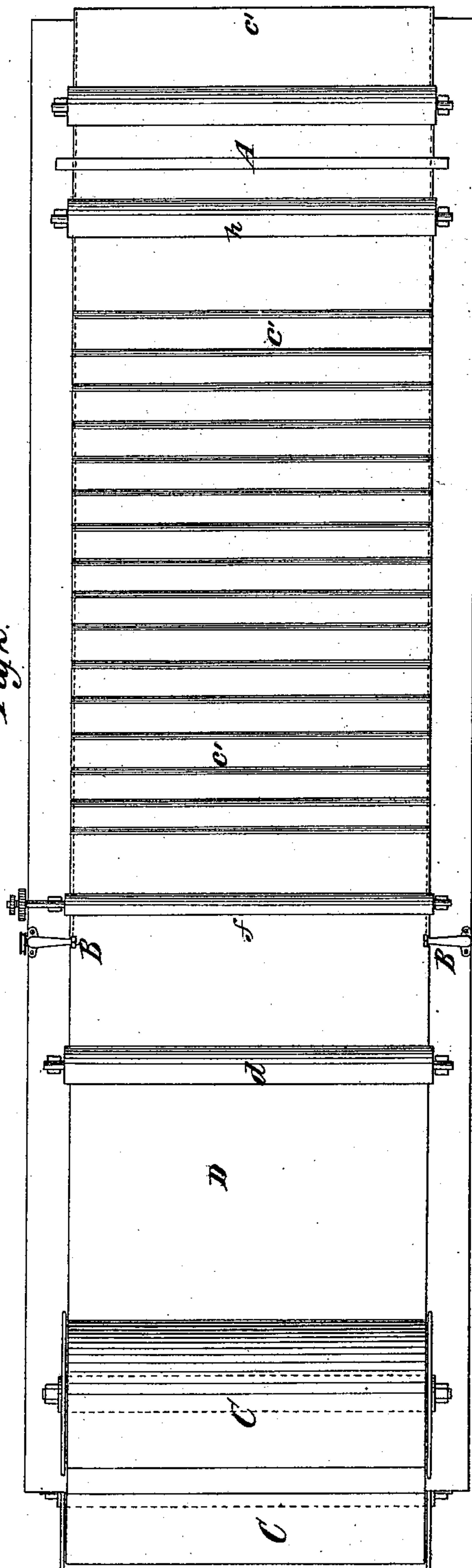
Patented Dec. 21, 1886.

Fig 1.



Witnesses:  
O. Sundgren  
Emil Herter

Fig 2.



Inventor:  
F. L. Palmer  
By his atty Brown & Hall



# UNITED STATES PATENT OFFICE.

FRANK L. PALMER, NEW LONDON, CONNECTICUT.

## METHOD OF MAKING COMFORTABLES FROM CONTINUOUS FABRIC.

SPECIFICATION forming part of Letters Patent No. 354,806, dated December 21, 1886.

Application filed April 8, 1886. Serial No. 198,192. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK L. PALMER, of the city and county of New London, in the State of Connecticut, have invented a new and  
5 useful Improvement in the Method of Making Comfortables from Continuous Fabric, of which the following is a specification.

Bed-comfortables of the less expensive grades are now made from a continuous fabric—that  
10 is to say, the print-cloths or other outer fabrics which form the two faces of the comfortables are unwound from rolls or beams, and the filling material, which is in the form of laps taken from a carding-engine or other machine, is  
15 unwound and spread out between the converging portions of the two face fabrics as they pass between two feeding or drawing rolls. The compound and continuous fabric thus produced is often passed directly and con-  
20 tinuously through a gang sewing-machine having a sufficient number of needles on one reciprocating needle-bar to quilt the fabric throughout its width, and after being quilted the continuous fabric is cut transversely to  
25 form comfortables which are sewed and bound or hemmed all around their edges. It has also been proposed to sew the side edges of the continuous fabric by separate needles at the op-  
30 posite sides of the gang sewing-machine, attached to the same needle-bar as the quilting-needles, or by means of two single-needle sewing-machines, through or past which the fabric moves after passing through the gang sewing-machine.

35 The methods of operation above described are objectionable for several reasons. The two face fabrics are often uneven, lapping or extending one beyond the other at the edges, and the compound fabric is quilted with the edges  
40 in such uneven condition, thereby necessitating a reduction in the width of the fabric when the longitudinal edges are sewed and finished. The cotton or wool used as filling, whether supplied from a lap or spread by hand between  
45 the face fabrics, will also be somewhat uneven and will project slightly beyond or fall short of the edges of the face fabric, and pieces of the filling are apt to be caught and pulled or shaken out while passing through the gang  
50 sewing-machine and before the longitudinal edges of the fabric are sewed up and finished.

Any method in which the edges of the continuous fabric are sewed and finished by needles or machines operating in connection with the gang-machine and while the fabric is under tension, or is in its direct and continuous  
55 travel through the gang-machine, is also objectionable for the reason that any derangement of the needles or machines for sewing the edges will necessitate the instant stoppage  
60 of the gang-machine and a suspension of operation until the defect can be remedied.

The object of my invention is to improve upon the methods above described so that the compound fabric, before being passed through  
65 the gang-machine to be quilted, or before being cut transversely to form comfortables, shall have its longitudinal edges evened and sewed or finished, thereby avoiding the objections above referred to.  
70

My improved method consists, essentially, in bringing together two continuous face fabrics and an interposed filling, in securing them together at their longitudinal edges to form a compound fabric having its face fabrics united  
75 at the longitudinal edges, and in subsequently quilting the compound fabric in order to secure the face fabrics and filling together between their longitudinal edges, as distinguished from the method of making comfortables which  
80 involves the quilting of the compound fabric before or at the same time that its longitudinal edges are secured.

My improved method also consists in bringing together two continuous face fabrics and  
85 an interposed filling, in securing them together at their longitudinal edges to form a continuous compound fabric having its face fabrics united at their longitudinal edges, and in afterward passing the compound fabric through  
90 a gang sewing-machine to quilt it, and cutting the fabric transversely to form comfortables, as distinguished from a method of making comfortables which involves the quilting of the compound fabric before or at the same time  
95 that its longitudinal edges are secured.

The method also consists in bringing together two continuous face fabrics and an interposed filling to form a continuous compound fabric, in then sewing the longitudinal edges  
100 of the compound fabric, and in afterward passing the fabric through a gang sewing-machine



to quilt it throughout its width, and then cutting the quilted fabric transversely to form comfortables.

In carrying out this method I prefer to keep  
5 a surplus of the compound fabric with finished longitudinal edges between the sewing-machines which sew the edges and the gang sewing-machine, and then the edge-sewing machines can be stopped for a time without necessitating the stopping of the gang-machine.  
10 This surplus of fabric, which is ready for the gang-machine, enables the edge-sewing machines to be fixed in case of their derangement without stopping the gang machine, and it also  
5 enables two operators to do the edge sewing of the fabrics for two gang-machines, the edge sewing of the two fabrics being performed alternately, and a surplus of fabric having finished edges being provided for passage through  
10 one gang-machine, while the operators are providing a similar surplus of fabric for the other gang-machine.

In the accompanying drawings, Figure 1 is a longitudinal vertical section, and Fig. 2 is a  
5 plan, of a system of machines for carrying out my improved method.

Similar letters of reference designate corresponding parts in both figures.

My present invention does not include any  
10 improvement in either the gang sewing-machine or edge-sewing machines, and hence I have shown in the drawings arbitrary representations of such machines. Such machines may be of similar construction to those ordinarily employed. The gang sewing-machine  
5 A has a reciprocating needle-bar carrying a sufficient number of needles to quilt the fabric throughout the whole or any part of its width, and the edge-sewing machines B having each  
10 a single needle and being of usual or any suitable construction.

The two print-cloths or face fabrics *c c* are taken from beams or rolls C and converge to an idler-roll, *d*, arranged above a table or bed,  
5 D, over which they pass. The filling, which is interposed between the two face fabrics *c* to form the compound fabric *c'*, is unwound from laps *e*, which are produced by a carding-engine or other machine; or it may be spread  
10 in a loose state by hand. The table or bed D extends forward to the gang sewing-machine, and in front of the edge-sewing machines B is  
15 a pair of feed-rolls, *f*, which may be geared together and driven with a step-by-step movement or continuously.

By the feed-rolls *f* the compound fabric is drawn forward through or past the edge-sewing machines B, and by the operators at these machines the face fabrics *c* and filling are  
20 evened at the longitudinal edges and sewed together or finished. The compound fabric *c'*, before it passes to the gang sewing-machine A, has its longitudinal edges evened and finished and the filling secured and protected at  
5 these edges. I prefer to have a surplus of compound fabric *c'* with finished edges accumulate

in folds on the table D, between the feed-rolls *f* and the feed-rolls *h*, which are behind the needle-bar of the gang-machine A, and then the edge-sewing machines B may be stopped  
70 for a time without necessitating the stoppage of the gang-machine. After the compound fabric *c'* has been quilted by the gang-machine it may be cut transversely to form the individual comfortables, which then have their re-  
75 maining edges finished.

In some cases I may sew and finish the longitudinal edges of the compound fabric by the edge-sewing machines B, and then cut it transversely without passing it through the gang-  
80 machine, and such comfortables would then be quilted on another machine.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The improvement in the method of making  
85 comfortables, consisting in bringing together two continuous face fabrics and an interposed filling, in securing them together at their longitudinal edges to form a compound fabric having its face fabrics united at their  
90 longitudinal edges, and in subsequently quilting the compound fabric in order to secure the face fabrics and filling together between their longitudinal edges, as distinguished from a method of making comfortables which involves  
95 the quilting of the compound fabric before or at the same time that its longitudinal edges are secured, substantially as herein described.

2. The improvement in the method of making  
100 comfortables, consisting in bringing together two continuous face fabrics and an interposed filling, and in securing them together at their longitudinal edges to form a continuous compound fabric having its face fabrics  
105 united at their longitudinal edges, and in afterward passing the compound fabric through a gang sewing-machine to quilt it, and then cutting the quilted fabric transversely to form comfortables, as distinguished from a method  
110 of making comfortables which involves the quilting of the fabric before or at the same time that its longitudinal edges are secured, substantially as herein described.

3. The improvement in the method of making  
115 comfortables, consisting in bringing together two continuous face fabrics and an interposed filling, and in securing them together at their longitudinal edges to form a continuous compound fabric having its face fabrics  
120 united at the longitudinal edges, in maintaining a surplus of the fabric, with its united longitudinal edges in advance of the edge-sewing machine, and then passing the fabric from such surplus through a gang sewing-machine for  
125 quilting it between its longitudinal edges, and in finally cutting the compound quilted fabric transversely to form comfortables, substantially as herein described.

FRANK L. PALMER.

Witnesses:

FREDK. HAYNES,  
HENRY MCBRIDE.