

W. GROTHE & J. O. HUFFMAN.
SEWING MACHINE.
APPLICATION FILED NOV. 2, 1908.

1,063,677.

Patented June 3, 1913.

2 SHEETS—SHEET 1.

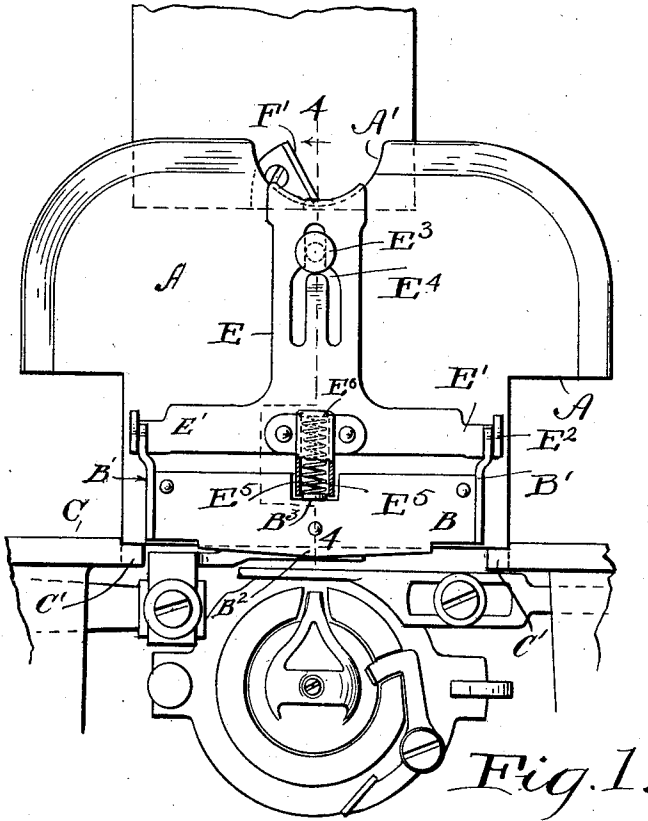


Fig. 1.

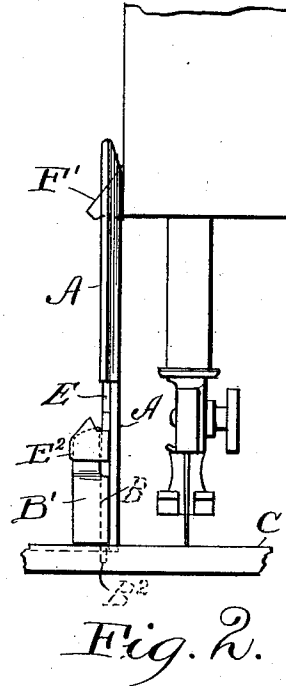


Fig. 2.

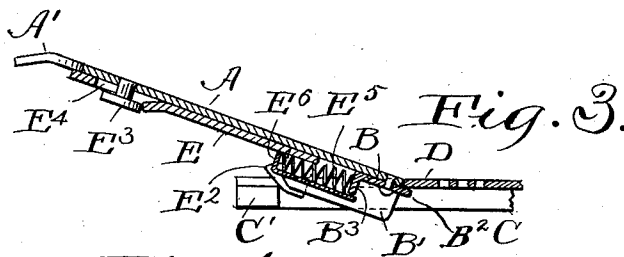
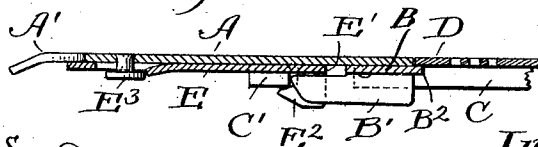


Fig. 3.

Fig. 4.



Witnesses
C. B. Gilchrist
H. P. Sullivan.

Inventors
William Grothe
John O. Huffman
by
Sheldon Woodard

W. GROTHE & J. O. HUFFMAN.

SEWING MACHINE.

APPLICATION FILED NOV. 2, 1908.

1,063,677.

Patented June 3, 1913.

2 SHEETS—SHEET 2.

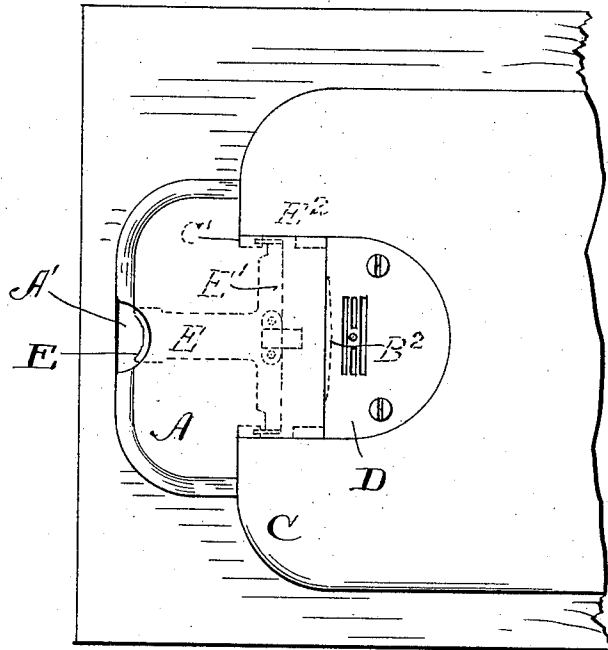


Fig. 5.

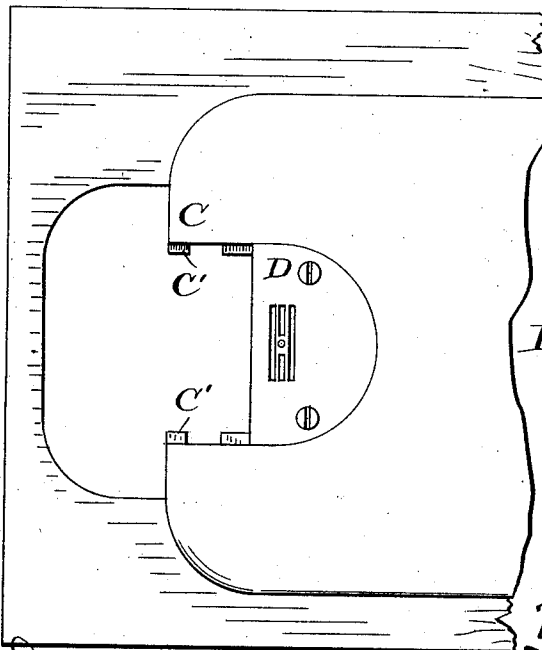


Fig. 6.

Witnesses.

E. B. Gilchrist

H. B. Sullivan

Inventors

William Grothe

John O. Huffman

Shurtis Landreth

UNITED STATES PATENT OFFICE.

WILLIAM GROTHE, OF LAKEWOOD, AND JOHN O. HUFFMAN, OF CLEVELAND, OHIO,
ASSIGNORS TO THE WHITE SEWING MACHINE COMPANY, OF CLEVELAND, OHIO, A
CORPORATION OF OHIO.

SEWING-MACHINE.

1,063,677.

Specification of Letters Patent.

Patented June 3, 1913.

Application filed November 2, 1908. Serial No. 460,582.

To all whom it may concern:

Be it known that we, WILLIAM GROTHE and JOHN O. HUFFMAN, both citizens of the United States, residing at Lakewood and Cleveland, respectively, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Sewing-Machines, of which the following is a full, clear, and exact description.

The present invention is directed to the provision of a closure for the openings commonly made through the end of the case of a sewing machine head, adjacent to the needle plate, and through the wooden portion of the platform of the table in the same locality. Such openings are commonly had for the purpose of inspecting the working parts of the machine beneath the needle and for the purpose of removing the bobbin case or other part when occasion requires.

The object of the invention has been to provide a plate to close this opening which shall be readily applied and held in either closed or open position.

It has been a further object to provide a plate of this character which may be removed entirely out of the way so that access may be had to the working parts of the machine even when heavy material, such as coats or similar articles, or attachments are held beneath the presser foot.

The above objects and other desirable advantages it will be seen are attained by that embodiment of our invention described in the following specification and illustrated in the accompanying drawings, in which;

Figure 1 is an elevation of the portion of a sewing machine head at the presser foot end showing the relation of the operating parts and our closing plate which has been raised to the open position. Fig. 2 is a side elevation of the closing plate in raised or open position. Fig. 3 is a central longitudinal section through the closing plate and a portion of the needle plate illustrating the method of applying the plate in position and closing the same. Fig. 4 is a similar section on the line 4-4 of Fig. 1 showing the plate in closed position. Fig. 5 is a top plan of one end of the head plate and the table adjacent thereto showing the closing plate in position. Fig. 6 is a similar view with the closing plate removed showing the ways on which it rests.

Our closing plate is, as above indicated,

designed to close the openings which are made in the base plate of the machine head adjacent to the needle plate and in the top of the table adjacent thereto in order that access may be had to the working parts beneath the needle. The body of this plate we construct in a single piece A designed to fit the two openings when in position. A suitable thumb notch A' is provided at the outer edge of the plate for the purpose of permitting access to the catch by which the plate is held in its closed position, as will be hereinafter described.

On the lower face of the plate near the inner end thereof we secure a retaining cross strip B having the ends thereof bent at right angles to the plane of the plate, the said ends being properly shaped to form retaining ears B' fitting closely behind lateral projections C' extending from the edge of the base plate C about the opening. These serve to prevent the closing plate from moving outward away from its proper position when it is once in place. The said cross strip projects from beneath the inner end of the closing plate a slight distance so as to form a lip B² adapted to take beneath the edge of the needle plate D, which needle plate for the purpose of this invention may be considered a fixture, after the manner shown in Fig. 3, making an engagement which acts as a separable hinge joint and about which the closing plate may be pivotally turned to an open or closed position. The said lip, of course, will assist in retaining the plate against any withdrawal in a directly upward position when it is once closed. Also on the under face of the plate we provide a catch strip E having laterally projecting wings E' extending through notches in the ears B', the ends of which wings are turned at right angles to the plane of the plate and are shaped so as to form catches E² designed to take under the above described lugs C' which project from the base plate into the opening. This catch strip is held in place by means of the ears B' and a headed rivet E³ passing through a suitably formed slot E⁴ therein. The catches are thrown forward by means of a coiled spring E⁵ fitted in a socket piece E⁶ secured to the catch plate and bearing against a lip or shoulder B³ formed at the forward edge of the cross strip B. Said catch strip when in

its forward position projects slightly beyond the thumb notch referred to so that by the insertion of the finger into said notch the said catch strip may be moved back to the point where the catches clear the retaining lugs and permit the swinging of the plate upward. For the purpose of retaining the said plate in its uppermost position, we secure a finger F' on the head of the machine in proper position to permit the forward edge of the catch strip E to snub under the same when the plate is raised to position shown in Figs. 1 and 2.

Should it be desired to attain access to the working parts while material is in the machine, especially should such material be too stiff to permit the plate to be swung to its open position, it will be necessary to do no more than swing it partly open to about the position shown in Fig. 3, after the catches have been pushed back. It will thereupon be easy to pull the plate forward along the plane which it then occupies, since it is clearly removable from the needle plate without any further manipulation. This is a marked advantage, since it frequently happens that it is desirable to get at the bobbin or some other part of the machine in the midst of work, and it is not always convenient to remove that work from beneath the presser foot at the time. With our construction of plate, however, it will be seen that the opening may be cleared at any and all times, and our construction is such that ordinarily the plate may be kept in its proper position, swinging on its separable hinge to and from its closed position, without any necessity for taking it out of or fitting it back into its proper place. Having thus described our invention, we claim:

1. A sewing machine comprising a base plate and a table, said plate and table having openings therein, said openings being adjacent to each other and affording access to parts of the machine beneath the said base plate, a single cover plate for the openings, an edge of the said openings in the base plate and table and an edge of the cover plate being in contact, the cover plate being fulcrumed on that part of the edge thereof which engages with the base plate, the cover plate being separable as an entirety from the base plate when the cover plate is raised slightly above its closed position.

2. A sewing machine comprising a base plate and a table, said plate and table having openings therein, said openings being adjacent to each other and affording access to parts of the machine beneath the said plate, a single cover plate for the openings, the rear edge of said cover plate being fulcrumed upon the rear edge of said openings, the plate being separable as an entirety

from the base plate when the cover is raised slightly above its closed position, means for normally retaining the cover in closed position, and means for holding the cover in wide open position.

3. A sewing machine comprising a base plate and a table, said plate and table having openings therein adjacent to the needle plate and affording access to certain parts of the machine beneath the base plate, a single cover plate for said opening adapted to be swung upward on one edge and drawn outwardly away from the opening when swung upward, means retaining the cover against direct upward movement and means retaining it against lateral movement away from the opening when it is lying in horizontal position.

4. A sewing machine comprising a base plate and a table, said plate and table having openings therein, a cover plate adapted to close both openings, projecting lugs at each side of the opening in the base plate upon which the cover plate rests, with a cross strip rigidly secured to the cover plate extending slightly beyond its inner edge on the lower side and adapted to take under the base plate, a catch strip movably connected to the under side of the cover plate having lateral extensions adapted to engage the lugs on the base plate, and means for holding said catch strip in yielding engagement with the lugs of the base plate, the catch strip being accessible to the operator so that it may be moved out of engagement with said lugs.

5. A sewing machine comprising a base plate and a table, said plate and table having openings therein, a cover plate adapted to close both openings, projecting lugs at each side of the opening in the base plate upon which the cover plate rests, with a cross strip rigidly secured to the cover plate extending slightly beyond its inner edge on the lower side and adapted to take under the base plate, said cross strip having depending and outwardly projecting ears at each end, a catch strip movably connected to the under side of the cover plate having lateral extensions, the extremities of which are supported by the ears of the cross strip and provided with hooked lugs adapted to take under the lugs on the base plate, with means for holding the hooked lugs of the catch strip in yielding engagement with the lugs of the base plate, and means whereby the catch strip may be pushed back and disengaged from said lugs to detach the cover.

6. A sewing machine comprising a base plate and a table, said plate and table having openings therein, a cover plate adapted to close both openings, projecting lugs at each side of the opening in the base plate upon which the cover plate rests, with a cross strip rigidly secured to the cover plate

extending slightly beyond its inner edge on the lower side and adapted to take under the base plate, said cross strip having depending and outwardly projecting ears at each end, a catch strip movably connected to the under side of the cover plate having lateral extensions which are supported by the ears on the cross strip and provided with hooked lugs adapted to take under the lugs on the base plate, a spring pressing said catch strip into engagement with the lugs of the base plate with a finger indentation in the outer edge of the cover plate into which a portion of the catch strip projects whereby it may be pushed back and disengaged from the lugs on the base plate to detach the cover.

7. A sewing machine comprising a base plate and a table, said plate and table having openings therein, a cover plate detachably and hingably mounted upon the base plate and adapted to close both of said

openings, projecting lugs in the opening of the base plate upon which the cover rests, a spring pressed catch strip movably connected to the cover and provided with hooked lugs adapted to engage the lugs of the base plate to lock said cover plate in closed position and having an exposed portion at the free edge of the cover plate whereby it may be pushed back to disengage it from the lugs of the base plate, a sewing machine head having a lug adapted to engage said exposed portion of the catch strip and yieldingly hold the cover plate in raised position.

In testimony whereof, we hereunto affix our signatures in the presence of two witnesses.

WILLIAM GROTHE.
JOHN O. HUFFMAN.

Witnesses:

HENRY A. LOWE,
CHAS. E. COLEGROVE.

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