

(No Model.)

2 Sheets—Sheet 1.

A. GROS & C. SALBREUX.

UMBRELLA HAT.

No. 270,660.

Patented Jan. 16, 1883.

Fig. I.

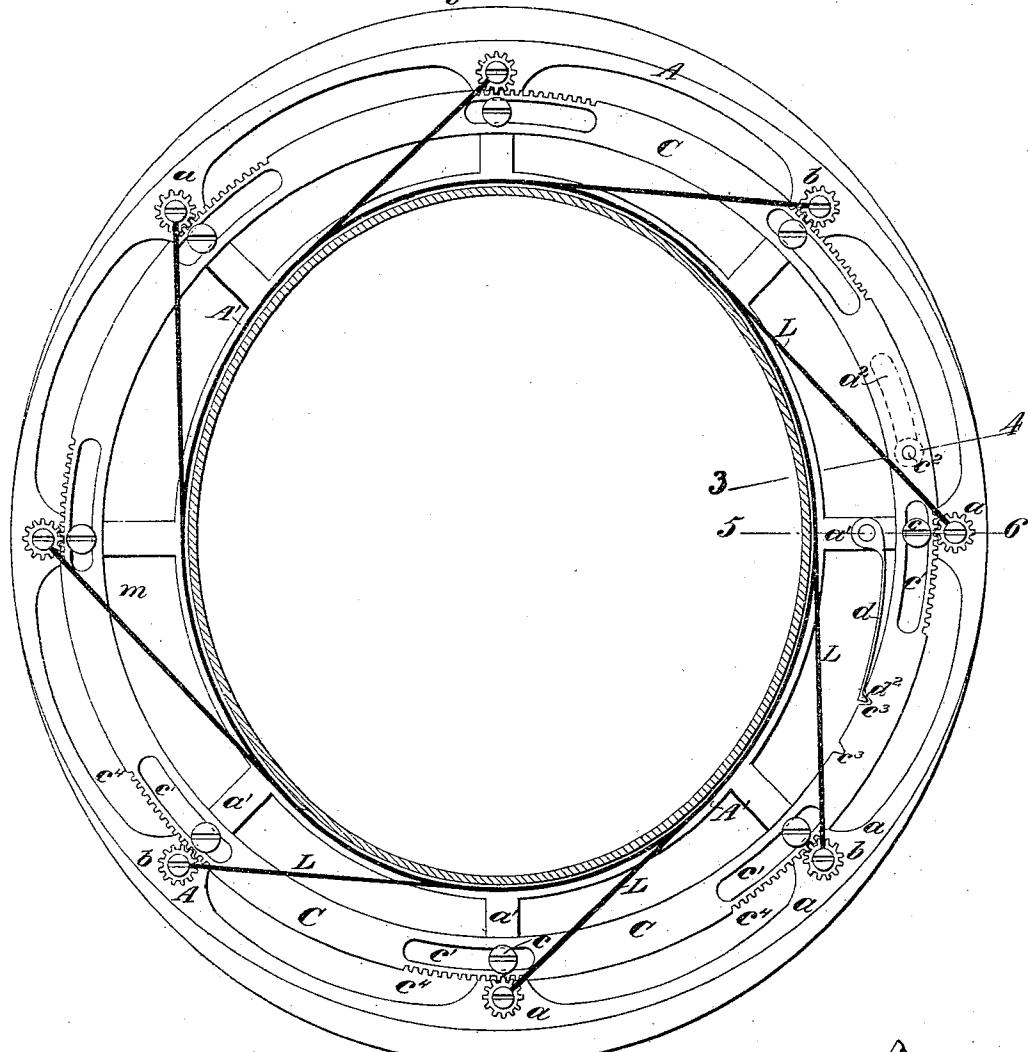


Fig. 2.

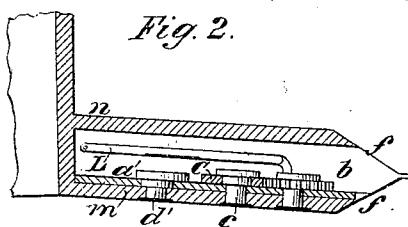
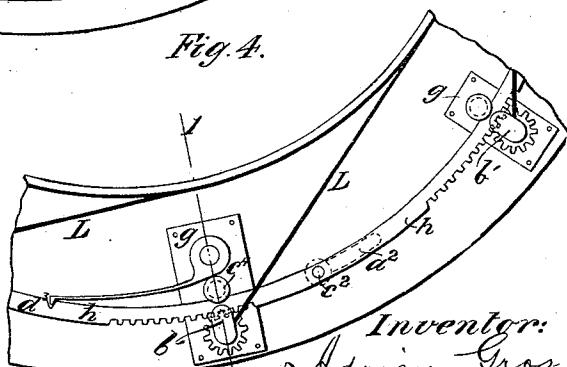


Fig. 4.



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Fig. 3.

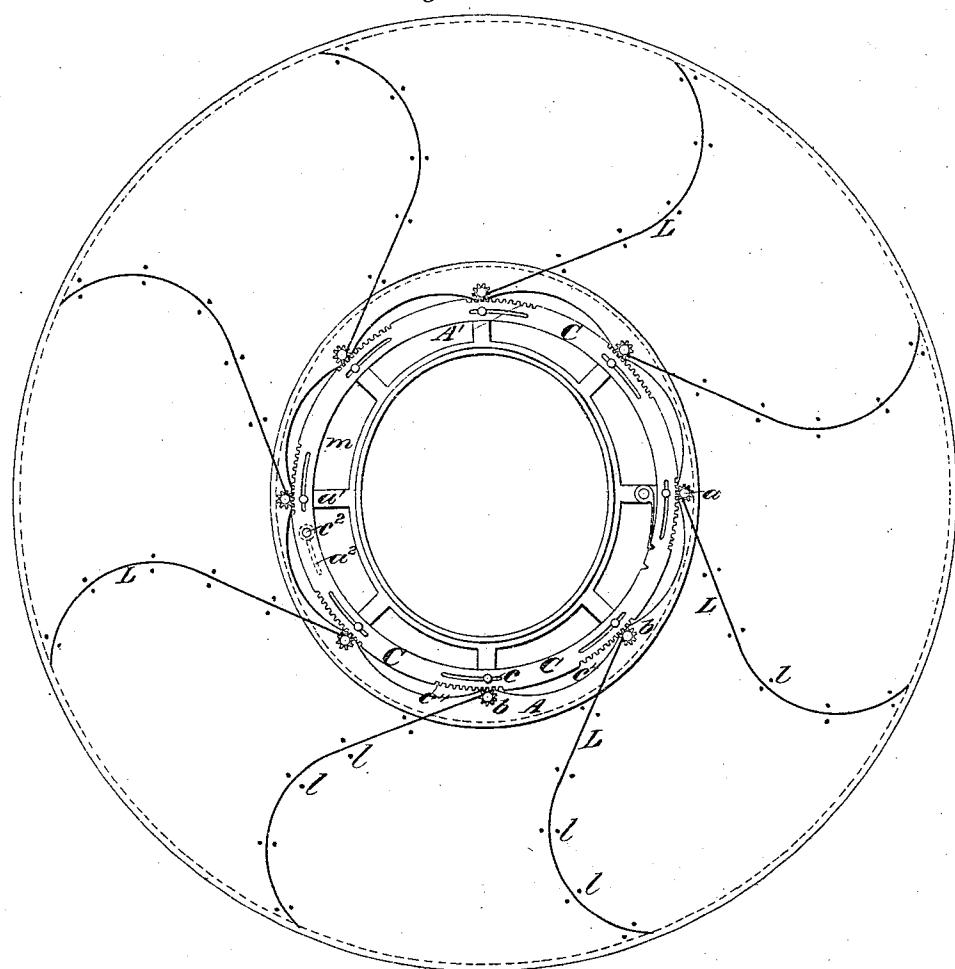


Fig. 5.

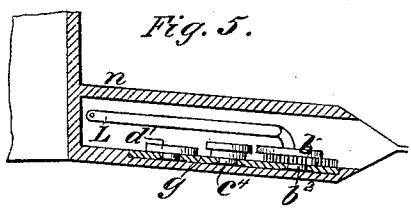
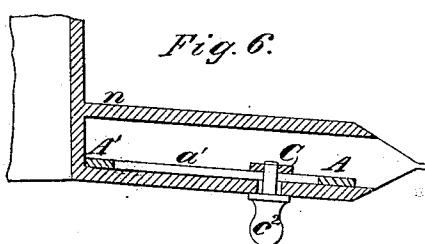


Fig. 6.



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UNITED STATES PATENT OFFICE.

ADRIEN GROS AND CHARLES SALBREUX, OF DIJON, FRANCE.

UMBRELLA-HAT.

SPECIFICATION forming part of Letters Patent No. 270,660, dated January 16, 1883.

Application filed July 12, 1882. (No model.)

To all whom it may concern:

Be it known that we, ADRIEN GROS and CHARLES SALBREUX, of Dijon, Department of Côte-d'Or, France, have invented certain new and useful Improvements in Umbrella-Hats, of which the following is a specification.

Our improvements relate to hats which are adapted to form umbrellas or parasols when required.

10 The part especially intended to form an umbrella or parasol consists in a certain number of whalebones or stretchers, one end of which is jointed upon the brim of the hat, while the remaining part of them expands horizontally beyond the brim and turns up above and round the cap, so that they may, when necessary, be eased up between the brim and a cover or casing provided above the same. A piece of any suitable tissue surrounding the brim and firmly attached to said whalebones follows the motion of the latter, either externally to form an umbrella or parasol, or internally when the hat is to serve as an ordinary head-dress. The movable whalebones or stretchers are eight in number in the example we here describe, which number may, however, be increased or reduced, according to the requirements of the case. Each one of them is fixed to a small pinion. All these toothed pinions are arranged along a periphery and set in motion by means of a revolving ring provided with toothed parts corresponding with the said pinions. This ring, having in the example here described eight toothed parts, describes a small turn, so as to cause the pinions carrying the whalebones to make about two-thirds of a revolution. A spring-catch or any other suitable device is provided to prevent the umbrella from opening when shut or shutting when open. The 40 starting of the whalebones may also take place by any other convenient means—such as cams, jointed levers, &c.—the same as the moving organs may be fastened on the very brim made of stiffened felt, india-rubber, or any other suitable material, and also upon an iron-work riveted to the said brim, which may be either full or hollowed out, as required. The lightness of the hat being an important condition, we reserve to ourselves to employ any convenient materials answering this purpose.

Our invention will be better understood on inspection of the annexed sheet of drawings,

in which, however, the hat shown is but a specimen.

Figure 1 represents the device forming the 55 umbrella, the upper part of the brim being removed. Fig. 2 is a section through the axis. Fig. 4 shows a modification of the iron-work. Fig. 3 represents the hat when completely 60 open and forming an umbrella. Fig. 5 is a section of Fig. 4. Fig. 6 is another section, showing the button.

The same letters refer to like parts in all the figures.

A frame made of iron or any other metal or 65 suitable material is formed of a ring, A, which is made wider at the points *a a*, in order to receive the fittings, and of another ring, A', placed close to ring A and connected with it on small cross-pieces *a' a'*. This frame is set 70 and riveted on the brim of the hat, and supports the whole mechanism. It may also be fixed below the hat-brim.

A number of small pinions, *b b b*, are mounted upon spindles or screws, so as to revolve 75 freely, and each one of them is provided with a small rod or stretcher, L, called a "whalebone," either round or flat, made of steel or any suitable material, either straight in its whole length or having one straight part, the 80 remaining part being curved.

A ring, C, toothed on the whole of its periphery or in the eight points only which correspond with the pinions, is placed upon cross-pieces *a' a'* and kept in its place by screws 85 *c c*, serving as guides to slides *c' c'*. A small button is riveted in *c'* below the toothed ring, and so arranged as to slide in a groove, *a'*, provided under the brim.

A spring-catch, *d*, attached by screw *d'*, is 90 provided with a head, *d''*, which enters one of the notches *c' c'* to prevent ring C from moving when open or shut. This head *d''* is surmounted by piece *d''*, Fig. 4, which keeps down ring C.

The mechanism works as follows: By pulling button *c'* the toothed ring C is caused to turn round, thereby setting in motion all pinions, with the arms or whalebones L thereto attached, which now expand beyond the brim, as shown in Fig. 3. The covering-piece of any 100 suitable tissues—such as cotton, silk, oil-skin, caoutchouc tissue, &c.—being fixed to the brim, either above or below, or sewed, pasted, or inserted by any suitable means within the same,

and firmly attached to each one of said whalebones with a slight strain, thus forms an external ring round the brim, with which it will form an umbrella or parasol, as the case may be.

5 When the tissue is to be driven in again button c^2 is pushed inversely, and the said whalebones, together with the tissue, will pass between the brim and another brim or envelope, n , and resume their internal positions.

10 It will be noticed that the distance between the two brims, including the umbrella, is wide enough. To conceal it the brims are beveled, and besides there is a lace or ribbon, $f f$, sewed upon them. These ribbons meet and 15 form a fastening or open by themselves when the umbrella is made to spring forth.

This whole umbrella-forming device may as well be arranged below the brim, in which case an envelope should be provided under the 20 same to protect it.

The iron-work mentioned above as serving for the setting of the pinions and toothed ring may be considerably simplified and made very light. They may even be entirely dispensed 25 with and substituted by small metal plates $g g$, (shown in Figs. 4 and 5,) fitted into recesses provided in the brim and firmly riveted by means of three or four small rods. Each pinion is fixed by means of shouldered shaft b^2 , 30 riveted under a steel plate and surmounted by a head, b' , which covers a part of the toothed ring and keeps it down. The ring h is very narrow, and is held internally by a rod, c^4 , 35 equally riveted under the plate, and having a head which maintains said ring h . This rod may be provided with a small roller, against which would bear the internal side of the ring. Similar rollers could also be placed below the ring. This ring works, like the one mentioned 40 above, by means of a button or a mitered slide which makes it turn, and thereby causes the whalebones and their covering to spring forth.

It is clear that the said iron-work may, without altering the principal feature of our invention, assume various forms, and that we do not confine ourselves to those here described. It may consist of two superposed parts, and be substituted for the brims, and a cap, made of 45 metal-work, or felt, or any material, may be added thereto, and covered with silk or another suitable stuff, in which case the umbrella should be inserted between the two superposed pieces.

For common and cheap hats the brims may 50 be made of felt, and the iron-work may have either the shape shown in Fig. 1 or the very reduced one represented in Figs. 4 and 5, or any other form. The top and brims of felt may be varnished either bright or dull. For fash-

60 ionable and rich hats the brim will be of stiffened felt, alumina, or any other light or resisting material, covered with silk all over, the same as the cap. The brims and cap may be hollowed out, to render the hat lighter. The umbrella or parasol is formed of the same silk 65 as that which covers the brim. It is sewed along its outline, and develops itself upon the aforesaid whalebones, these being provided with small holes or notches, to keep threads 70 $l l l$, Fig. 3.

As this hat, when the umbrella is open, by reason of the considerable increase of its diameter, might have a tendency to turn down, we fix below the rim two small buttons, to which the two ends of a strap of leather or india-rubber are attached, so as to prevent the hat from moving. 75

Having thus fully described all parts of our invention, what we claim, and desire to secure by Letters Patent, is— 80

1. The combination, with a hat, of a series of whalebones or stretchers pivoted near the outer edge of the brim, and adapted to be swung outward, so as to project beyond the brim and support the tissue forming the umbrella or parasol, and means connected with said whalebones or stretchers for swinging them inward and outward in unison, substantially as specified. 85

2. The combination, with a hat, of a series 90 of whalebones or stretchers for supporting the tissue forming the umbrella or parasol, pivoted near the outer edge of the brim and curved so that when swung inward they will fit against the side of the crown, and means connected 95 with said whalebones or stretchers, for swinging them inward and outward in unison, substantially as specified.

3. The combination, with a hat having a double brim, of the series of whalebones or stretchers arranged between and pivoted to one of 100 said brims, and adapted, when swung outward, to support the tissue forming the umbrella or parasol, substantially as specified. 105

4. The combination, with a hat, of a number 105 of pinions journaled in the brim, and each carrying a whalebone or stretcher, and a toothed ring engaging with all said pinions and adapted to be operated to turn all said pinions simultaneously, substantially as and for the purpose specified. 110

In testimony whereof we have hereunto set our hands this 7th day of June, 1882.

ADRIEN GROS.
CHARLES SALBREUX.

Witnesses:

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