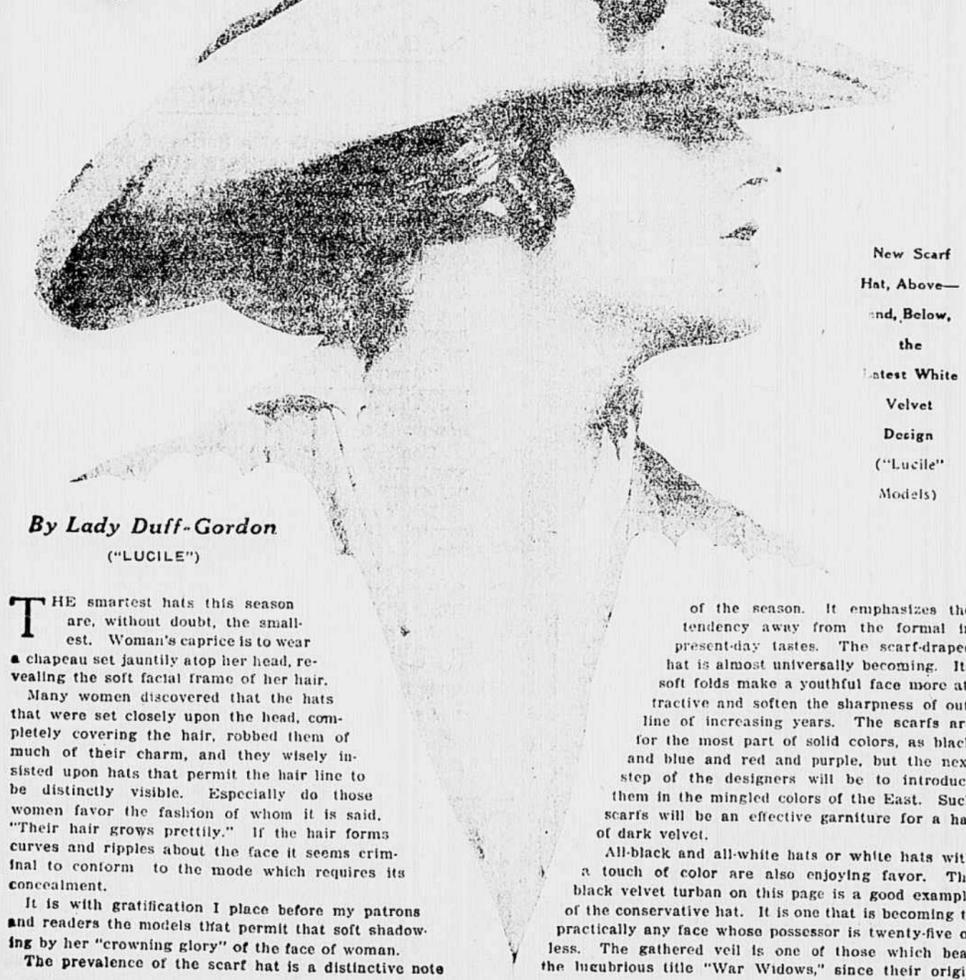


The New Hats

By Lady Duff-Gordon

LADY DUFF-GORDON, the famous "Lucile" of London, and foremost creator of fashions in the world, writes each week the fashion article for this newspaper, presenting all that is newest and best in styles for well-dressed women.

Lady Duff-Gordon Paris establishment brings her into close touch with that centre of fashion.



By Lady Duff-Gordon
("LUCILE")

THE smartest hats this season are, without doubt, the smallest. Woman's caprice is to wear a chapeau set jauntily atop her head, revealing the soft facial frame of her hair.

Many women discovered that the hats that were set closely upon the head, completely covering the hair, robbed them of much of their charm, and they wisely insisted upon hats that permit the hair line to be distinctly visible. Especially do those women favor the fashion of whom it is said, "Their hair grows prettily." If the hair forms curves and ripples about the face it seems criminal to conform to the mode which requires its concealment.

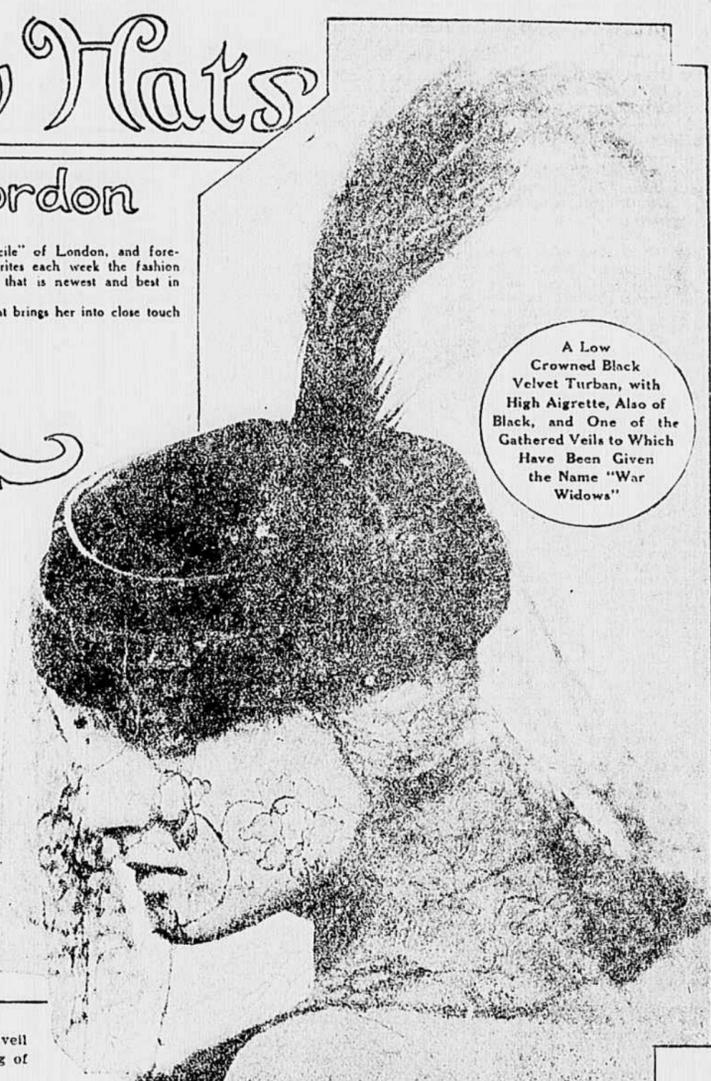
It is with gratification I place before my patrons and readers the models that permit that soft shadowing by her "crowning glory" of the face of woman.

The prevalence of the scarf hat is a distinctive note

of the season. It emphasizes the tendency away from the formal in present-day tastes. The scarf-draped hat is almost universally becoming. Its soft folds make a youthful face more attractive and soften the sharpness of outline of increasing years. The scarfs are for the most part of solid colors, as black and blue and red and purple, but the next step of the designers will be to introduce them in the mingled colors of the East. Such scarfs will be an effective garniture for a hat of dark velvet.

All-black and all-white hats or white hats with a touch of color are also enjoying favor. The black velvet turban on this page is a good example of the conservative hat. It is one that is becoming to practically any face whose possessor is twenty-five or less. The gathered veil is one of those which bear the lucubrious title "War Widows," since their origin

New Scarf
Hat, Above—
and, Below,
the
latest White
Velvet
Design
("Lucile"
Models)



A Low Crowned Black Velvet Turban, with High Aigrette, Also of Black, and One of the Gathered Veils to Which Have Been Given the Name "War Widows"

was the common use of the draped veil on the Continent since the beginning of the European conflict.

The white satin hats of last Spring and Summer retain their popularity. They have simply expanded, or rather have been metamorphosed into the more reasonable velvet. That velvet which has a deep ivory tint is the richer. One which was sent from my atelier to a beautiful American brunette was of that

rich shade, its richness emphasized by a garniture of mink.

Hats are and will be for some time, as far as I can see, smaller, and are worn rather tilted forward. The hair is worn close to the head. Long and narrow plaits of hair are worn, looped and crossed and in many queer shapes.

With the hair worn close to the head, earrings play an important part nowadays. They are made of clusters and sprays, carried out in jewelry and enamel. These are sometimes two inches long and at the lower end about an inch wide, but are made very light of jewelled filigree.

Putting the Sunbeam to Work

THE wonderful "X-ray," by means of which an Italian inventor experimenting under military direction has proved, it is claimed, that the explosives in an enemy's magazine or on board of a hostile warship can be "set off" at a distance of miles, is merely part of an ordinary sunbeam.

This will be better understood when it is explained that the now-familiar X-ray is part of the sunbeam; and so, likewise, are the rays that carry "wireless" messages.

Only within the last very few years has it come to be realized that the every-day sunbeam is vastly more complex than was hitherto supposed. It is a bundle made up of many different kinds of things, and, in addition to light and heat, it carries electricity, and goodness knows what else.

The sunbeam, or part of it, when suitably employed, may yet become the most formidable of all instruments of warfare. It is by no means inconceivable that its development as such may arrive before the close of the great conflict that is now going on in Europe.

More than one idea formed in the imagination of ingenious fiction writers has been translated into accomplished fact during the present war—notably the use of poisonous gas-clouds and Conan Doyle's suggestion of a submarine blockade to destroy England's commerce. It was H. G. Wells who described the frightful destructive power of a "heat ray" employed by invading foes from Mars, which annihilated every living thing against which it was directed.

Science has been taking the sunbeam to pieces, as a child does with a toy, to find out what it is made of. Thus we have been made aware that only a very small part of it carries light—which means, of course, that only a relative few of its rays are able to affect the retina of the eyes. Another part, much larger, carries heat, and upon this the farmer depends mainly for the growing of his crops.

When Roentgen, by a lucky accident, discovered the X-rays, it was an invisible piece of the sunbeam that he hit upon and utilized. Another portion is composed of electric rays, which are used for transmitting wireless messages.

It appears, then, that we are putting the sunbeam to work, and obliging it to do things which used not to be regarded as in any way its business. Young Mr. Hammond is actually employing it (the wireless part of it, that is to say) to steer a new-fangled submarine torpedo, which, when his invention is perfected, will be controllable from shore at a distance of many miles by merely viewing it with a telescope and pushing a couple of buttons to turn the rudder this way and that.

How, one might ask, is it possible to take a sunbeam to pieces and find out what it is made of? To take it to pieces is the simplest thing in the world, any child can do it with the help of a glass prism.

The child finds the experiment amusing, for the sunbeam, coming in at a window and thrown through the prism upon a wall, is split up into a series of color bands, with violet at one end and red at the other.

But, quite naturally, it never occurs to the child's mind—nor did it so occur to that of the philosopher until recently—that the visible color bands represent only a very small part of the sunbeam thus taken to pieces by the prism. The child's eye cannot perceive the bands of invisible rays which extend far above the violet strip at one end of the color "spectrum" and far below the red strip at the other end.

This is where always-inquisitive science has taken up the problem. The question set before it is: What are the rays above the violet and below the red? What is their nature and for what purposes can they be utilized?

To a considerable extent this problem has already been solved. We know that above the violet band are most of the rays that affect the photographic plate; they are chemical rays, which is the reason why below the red band are nearly all of the heat rays of the sunbeam.

Below the heat region are the electric rays, used to carry wireless messages. Above the "ultra-violet" part, that enables the every-day photographer to take his pictures, is a region in which photograph can still be taken (all other rays being excluded), but only in a vacuum.

Far above the latter region is the home of the mysterious X-rays, to which human flesh is transparent. With their help "shadowgraphs" can be made, showing the bones of the skeleton or a bullet embedded in a bone. During the present war the X-rays have saved the lives of thousands of wounded men.

Most interesting of all, however, from our present point of view, are the regions of the sunbeam (thus split up) which remain as yet unexplored. There is such a region below the heat band, separating the latter from the home of the electric rays beneath. There is another beyond the vacuum-photographic, and before the X-rays are reached. There is yet another beyond the X-rays.

Who can say what unsuspected marvels lie in these unknown regions of invisible light, or to what purposes may be applied the unidentified rays which they contain? They may revolutionize warfare; they may even be destined to control the march of future civilization.