War Fashions

By Lady Duff-Gordon.

New Charming "Lucile" Walking Dress of Semi-Military Cut.

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 tyles for well-dressed women.

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

Lady Duff-Gordon's American establishment is at Nos. 37 and 39 West Fifty-seventh street, New York.

'Lucile" Dress Showing the "Turko" Soldier Skirt and "Military" Girdle.

London, Sept. 6.

IT is difficult, indeed, for me to write of fashions with the war horror brooding over all Europe now. Paris is no longer the centre of fashion—it is a place where sorrow and patriotic hope alternate and nothing is thought of except the men who go out to battle, the men who do not return and the preservation of France.

There will be no models shown in Paris this year!

Before the shock came that threw all life here out of its accustomed grooves it was apparent that this was to be a velvet season. The velvet was to be of richest Lyons weave, combined with softest chiffons. It was to have been a costly fashion year in Paris. In colors black was to predominate—a bit of saddening prophecy. There was to have been a great deal, too, of navy blue, bottle green and tete de negre. As an aftermath to the one shade scheme, which was to have been at first the most fashionable, there was to follow such striking contrasts as, for instance, a good corsage of real rouge chiffon velvet colored and bordered with black fox and a skirt of black velvet.

As a material for evening wraps, too, velvet will again be to the fore, and in such cases, of course, the more brilliant colorings will be used to splendid effect, and their general "sumptuousness" further increased by broideries of gold or silver and broad borderings of fur.

Then, again, there was to have been—and will be—available for the making of evening gowns, ninons brocaded with velvet roses and leaves, or else perhaps patterned with Sereny velvet guimpes, which are broken into at intervals by a tri-colored shamrock leaf or a cluster of tiny rosebuds, sheltering within a circlet of leaves—sapphire blue, petunia and green being one typical triple alliance of colors.

But even apart from their frequent use as a mere background for this dominant and decorative velvet, the ninons are going to have a special success on their own account. In many cases they are weighted by heavy metallic designs; tall tapering leaves of silver showing out against a blue as intense as a tropical sea under the noon-day sun, while on another a blur of blossoms in blue and rose and flame and green makes background for other flowers all wrought in gold and lends a new and ever changing beauty of shading to their shining petals.

It would seem, too, that the new "frosted" effects are going to be very popular, and certainly they are very light and pretty, as well as novel. Twisted threads of silver or gold tinsel are used for these designs, which are either broidered or plain ninon, or a pattern printed in many soft shadowy colorings on an old ecru ground.

It has been more difficult than you can know for me to write this.

What Makes Sea Monsters

the Deep

One of the Extraordinary and Grotesque Fishes Which Are Taken from the Lowest Depths of the Sea. Their Strange Shapes Professor Houssay Finds, Are Caused Entirely by the Enormous Pressure of Water in Which They Live.

Remarkable Experiments by a Famous French Scientist Which Shows Fish Shapes Are Made Entirely by Water Pressure

By FREDERICK HOUSSAY,
Professor at the Sorbonne.

EVERYONE who has seen the weird, grotesque monsters that from time to time are brought up from the lowest depths of the ocean, has wondered what it is that has made them so misshapen. They are like nothing seen on land or in air and they bear no resemblance to the graceful denizens of the shallow reaches of sea.

By a series of experiments we are now able to say that the shape of these deep sea monsters is produced almost entirely by water pressure alone.

To understand how water was able to model the fish we have to understand that every living creature is plastic, that is to say, may undergo some deformation under pressure. To take one example of many, every one knows that if a child holds itself badly it will become deformed. If it allows its weight to exercise a pressure in an uneven way, leaning always to one side, it will curve the spinal column very markedly. This deformation may, however, be rectified by proper pressure brought about by a stiff brace or in some other way. If, then, in the course of a few years we see how a body may be modified by slight pressure, can we not understand how enormous pressure exerted for ages can bring about great changes?

What, then, is this great force with which we have to deal? It is the resistance of the water. This is an enormous force.

Having at our disposition the living plastic creature and the great modelling force, it is necessary to detail the conditions in which the latter acts upon the former? The two esential qualities both necessary and sufficient to obtain fish with a plastic nature are that it has the power of displacing rapidly, and that it has the same density as the water. All the fish properly formed weigh, we may say, volume for volume, as much as the water, sometimes a little more, sometimes a little less.

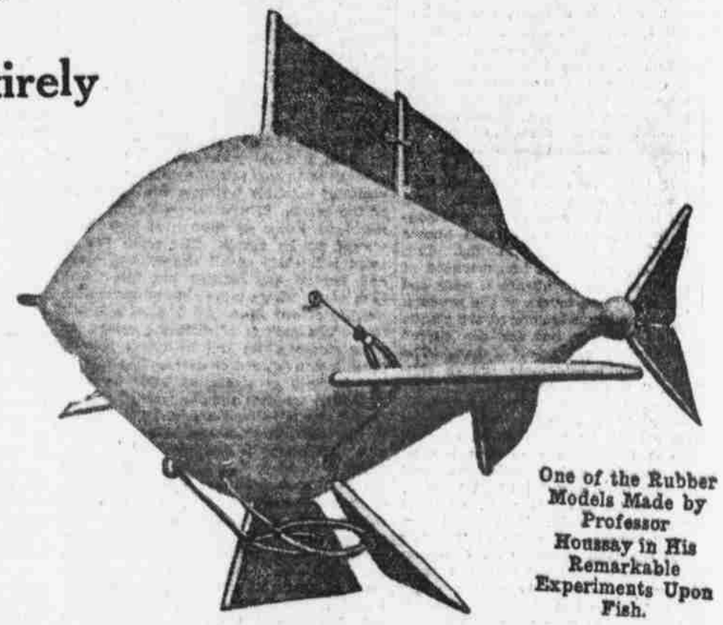
Those creatures which are still heavier, and at the same time less rapid, are not modelled in the fish at all, but into annelids and crustaceans. Other creatures still heavier and at the same time still slower become molluscs, and others that do not move at all fix themselves on the rocks or bury themselves in the bottom and are modelled accordingly.

This explains how it is that although the resistance of the water is always the same it does not always produce the same effects nor act in the same manner, and for this reason all the aquatic creatures, though equally plastic, but being of different weights and of different speed, are not at all like each other. This being well understood, it is easy to see how the water may model a plastic creature that is rapid and equally dense, that is, weighing just about as much as the equal volume of water. How, then, are we to experiment so as to obtain the same conditions under which the fish swim?

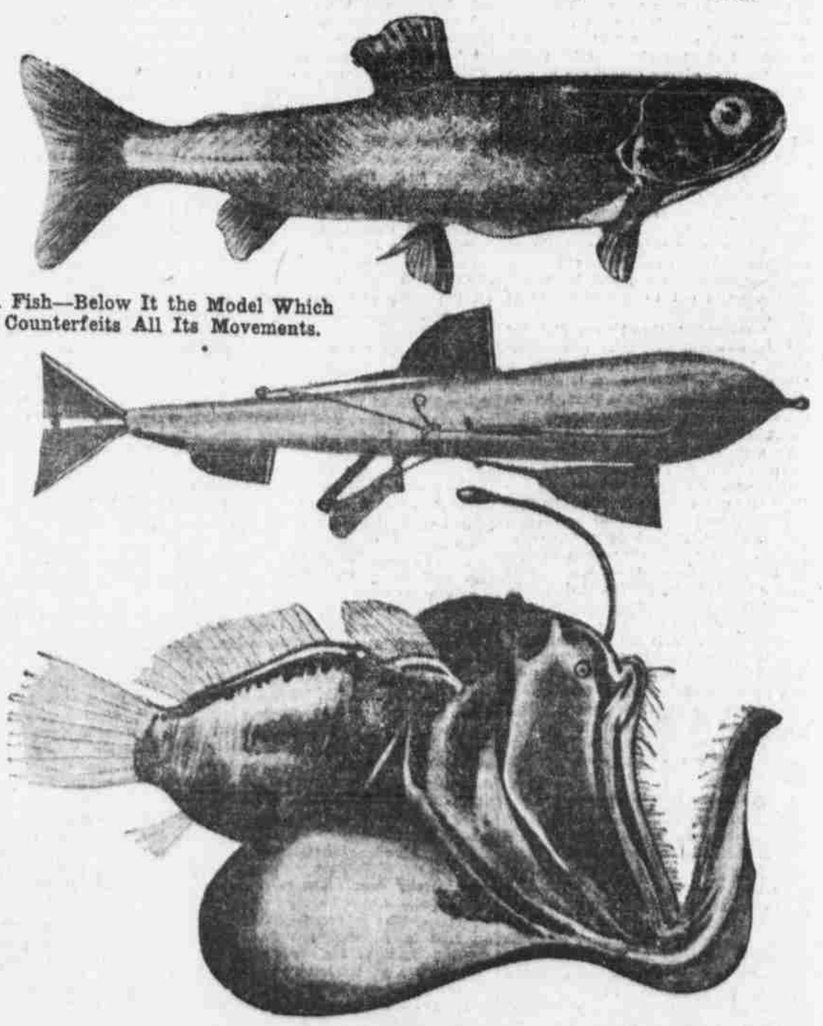
In order to have a body as a model which will be plastic I use a rubber bag about seven inches long and an inch and a third in thickness. This must be of the density of the water, and I fill this with some oil so as to get the exact equal volume. I attach this to a thread so as to draw it through the water. You have only to look at it as the speed has increased, and you will see how the water presses upon the bag. When going very slowly, if the sack was laid flat in the beginning it stays flat, only turning on its axis. If drawn more rapidly the front remains at the horizontal and the back becomes vertical. If the speed be still more increased the number of inversions increases, and we can count three, five, seven or more successively horrizontal and vertical.

The ripples of the water flee to the back to give place to the body which is penetrating it. In the presence of the obstacle which the form of the sack opposes to their flight they take on an appearance which is repeated with a certain rythm, a vibration, as we call it. The vibration of the water models the soft sack, and this shows us how it works on the fish. It is a very plain application of one of the most beautiful theorems of physics discovered by Lord Kelvin on the vibratory transformation of a ripple in the presence of an obstacle.

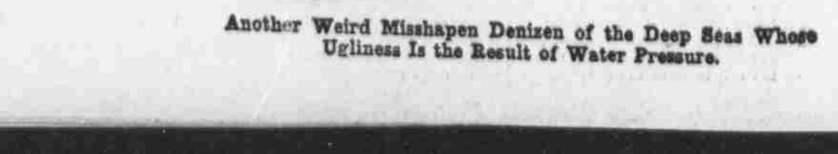
The power of swimming in the fish when coupled with its weight and density is the actual explanation of all the modifications which come about in the recesses of the sea. The monsters of the deep are the poor swimmers who have barely escaped in many instances becoming crustaceans and losing the character of fish altogether.



One of the Rubber Models Made by Professor Houssay in His Remarkable Experiments Upon Fish.



A Fish—Below It the Model Which Counterfeits All Its Movements.



Another Weird Misshapen Denizen of the Deep Seas Whose Ugliness Is the Result of Water Pressure.