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is fast becoming extinct, but this fact need not trouble the housewife. Her interest is centred on the fact that, thanks to SUNLIGHT SOAP, the terrors of wash-day have become quite extinct. With

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FRays to Cease War.

The Man Who Promises to Make War Impossible, and How He Proposes to Do It.

Signor Ulvi and his wonderful F rays have already been described in Public Opinion. But the possibilities of his F rays are greater than have been widely realised. He claims to be able to ignite explosives at a distance. So doing will he end war?

Mr. Garrett Fisher discusses this possibility in an interesting article in the Daily Mail.

To Scrap Warships. "The science, which has done so much to make war more costly and destructive, put an end to it?" he asks.

"It is just as conceivable that the discovery of the new form of radiation, which Signor Ulvi calls the F rays, if his claims turn out to be well founded, will go a long step in this direction. And in that case he will be an even greater benefactor of mankind than his countryman Mr. Marconi. Great as we have lately seen the power of wireless telegraphy to be to save life at sea, infinitely greater would be the gain to humanity of an invention which made war all but impossible—or at any rate forced the scrapping of all its costly implements of destruction on which every Great Power is now spending billions of millions of pounds annually.

The Sorts of Rays. "The F rays are stated to be capable of igniting explosives at a distance. If this is true, modern warfare is at an end. For it entirely depends on the use of explosives. The army of to-day, with all its elaborate organisation and material, is simply a device for bringing the greatest possible number of guns and rifles to bear on a given spot. The battleship is a gigantic gun-carriage. Now, if the F rays really do what is claimed for them—even though they can only work at present over a few feet of space in a laboratory—the whole of the strategy and tactics of the twentieth century must go by the board. Mr. Marconi's first public demonstration was given in a lecture-hall, where some fifty feet divided his transmitter from his receiver. Now the wireless waves can cover distances measured in thousands of miles. It is quite clear that, if the F rays can be developed on the same lines, cordite and high-explosive shells and the whole apparatus of slaughter at a distance must be abandoned, since the magazines and ammunition wagons will be blown up long before the hostile armies or fleets come within range of one another.

How the Rays Can Work. "The only valid test of the F rays, of course, is experiment carried out under conditions which can be repeated by other investigators with the same result. But one may consider the a priori possibilities of the case. These are not very encouraging to the believer. There is no theoretical difficulty, of course, in blowing up a store of ammunition by means of the Marconi apparatus. If we can contrive to insert into the magazine some suitable fuse which will be energised by the wireless wave. But the F rays are said to act direct on any explosive. As far as we know, there are only three ways of igniting an explosive—either by heat (as with gunpowder), by percussion (as with fulminating mercury used in percussion caps and detonators), or by chemical change such as produced the explosion in the Liberte).

"Therefore the F rays must be capable of either heating the explosive on which they fall to a temperature of at least 400 deg. F., or (for percussion) is out of the question) of setting up some chemical change which leads to the spontaneous combustion of the nitro-compounds which form the base of all modern explosives. The energy required to produce the former effect would be so incalculably vast that we may rule out this possibility. It is conceivable that the F rays can bring about any spontaneous chemical change in such more or less unstable substances as cordite or picric acid? What radium has taught us of the complex nature of the so-called atom should incline the modern physicist not to be unduly dogmatic in saying that such a claim is impossible. But we may be sure that he will demand very cogent experimental proof before he accepts it as valid. "No scientific reason, however," forbids us to hope that Signor Ulvi may triumph over his critics. If he does, what will happen to war? Will the necessary abandonment of guns and armour—with all their far-reaching consequences—simply mean a return to the arme blanche and the medieval artillery of bows and arrows, catapults and chargers, as set forth in Chapter 43 of 'The Cloister and the Hearth,' or will it give the pacifist his opportunity to cry halt to the dogs of war? Who can tell? Man is still a fighting animal—but possibly the shock of such a sudden reversion to the Dark Ages may enable him to see that war between civilised Powers is essentially out of date.

All Sorts of Rays. "The F rays are said to be a new form of radiant energy—energy, that is to say, which is projected in all directions from the point where it is generated by the medium of waves produced in the subtle ether which fills not only what we call empty space, but also interstices of all solid bodies. The most obvious type of such energy is the light and heat which we get from the sun. This type has been known from the beginning of time, because our eyes and bodies are sensitive to it. But we now know that light and radiant heat correspond only to one small series of waves in the ether, and that there is a countless variety of other waves which produce entirely different physical effects.

"Wireless telegraphy is the result of a special set of waves—far bigger than those of light—which can only be detected by the 'electric eye' known as coherer.

"The Rontgen or X-rays, which now play so large a part in surgical work, are almost certainly another kind of waves in the ether, and the same thing is probably true of the Gamma-rays emitted by radium salts.

"The reason why it has taken so many centuries of scientific work to discover the existence of all these forms of radiation is simply that our bodies are not so sensitive to their effects, as they are to radiant light and heat.

"Some psychologists hold that the phenomena of thought transference—what is known as telepathy—are due to a yet undiscovered kind of radiation, which is sent out under certain conditions of mental stress by one human brain and can be perceived by another brain through the medium of some 'sixth sense,' which is only developed in a few individuals, and whose laws of action are still obscure.

Possible New Forms of Radiation. "But no man of science now denies that there must be innumerable varieties of radiant energy transmitted through the ether which have not yet been studied by man. The waves of wireless telegraphy are many miles in length. Those of light are only about one-fifty-thousandth part of an inch long. There is no reason to doubt the existence of other waves lying between these extremes, which are capable of producing hitherto unsuspected physical effects when they fall upon a receiver which is in tune with their pulses.

"We all remember the storm of hilarious incredulity with which the world received the first announcement of Dr. Rontgen's discovery, less than twenty years ago, with its sensational corollary that a living man's skeleton could be photographed. We are wiser nowadays, and are prepared to consider almost any claim which is properly put forward for the capabilities of some new form of radiation."

War Against Legalized Murder. (Clinical Congress Declares Surgeons Using Knife Must be Thoroughly Trained.

Chicago, Nov. 15.—War against "legalized murder" by surgeons who are commissioned to wield the knife before they have been sufficiently trained, was declared at the closing session of the Clinical Congress to-day.

To prevent "criminal malpractice," so far as is possible, the Congress appointed a committee to visit the State legislatures of this country and the Provinces of Canada to urge enactment of the following into law:

"Require physicians to have five years experience in general medical practice before permitting them to practice surgery, ordering that two years of their practice be passed in active hospital work or under the direction of a surgeon—generally recognized as of the highest attainments; requiring medical colleges to give full clinical advantages as part of their course in medicine."

Potato Flour—1 lb. pack. Tate's Cube Sugar—Cartons. Uncompressed Julianne—1 lb. Cartons. Edam Cheese in Bladders. English Spices—7 lb. lever top tins. Moir's Chocolates—5 lb. boxes. Moir's Chocolates—30 lb. pails. Moir's Gum Drops—30 lb. pails. Moir's Kisses & Caramels—30 lb. pails. 250 bris. WINTER KEEPING APPLES, viz: Baldwin, Stark, Ben Davis, etc.

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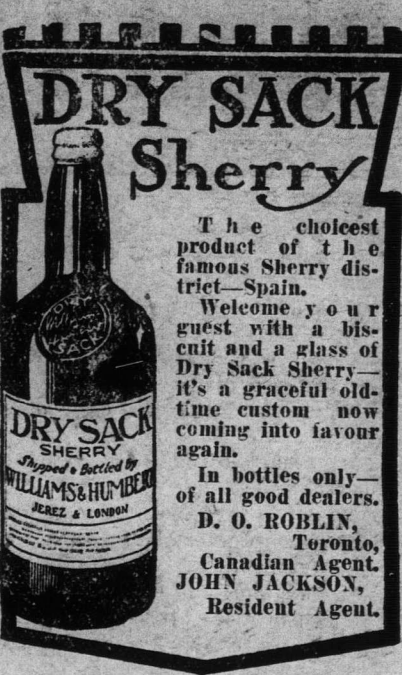
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The Fruit Trees.

By GEORGE FITCH.

Author of "At Good Old Slivash."

While the gentle autumn is merging almost imperceptibly into winter, the careful house owner is inserting his next year's fruit trees into the hardened bosom of the earth.

The infant fruit tree is a bright ray of promise which gladdens the winter for its eager owner. In the spring, however, it does not gladden the owner so much. This is because it is busy gladdening the borer, the caterpillar, the beetle and the predatory cur worm bug. Nothing is more hospitable than the young fruit tree which has survived a long, hard winter. One small tree can hold enough bugs of various descriptions and appetites to fit out a museum of natural history.

Winter is the happiest time for the owner and proprietor of the promise fruit tree. In winter the tree blooms terrifically and bows beneath the burden of its ripe and luscious fruit. With the aid of a handsomely illustrated catalogue and a grate fire the householder can spend many a winter evening letting down apples out of his yearling orchard with dericks. But in the spring when the gnawful rabbit, the industrious blue jay and the consuming bug arrive and when winter lops around in the lap of May until the peach crop is exceedingly whence, the parent and guardian of the infant fruit tree is not so happy.

Later on he pours 11,000 gallons of metered water around said tree, wraps it with fly paper, bandages its limbs, scrapes its roots, combs its limbs with a fine toothed comb and nurses it with penicillin care. In the course of time it brings forth fruit and 9,000 small boys emerge from the mysterious storehouse of youth and climb its tender branches—after which the early June cyclone picks it up and bears it swiftly away to deposit it in the parlor of a total stranger, with one limb thrust rakishly through the piano.

And yet many fruit trees arrive at maturity and make good with their owners. Nothing is more inspiring than to stroll forth in the evening with a china plate and harvest the peach crop that has rewarded several years of earnest endeavour. No great good is won without some sorrow, and fruit tree owners should not despair.

If Child Is Cross Feverish And Sick.

Look Mother! If tongue is coated, cleanse little bowels with "California Syrup of Figs."

Children love this "fruit laxative," and nothing else cleanses the tender stomach, liver and bowels so nicely.

A child simply will not stop playing to empty the bowels, and the result is, they become tightly clogged with waste, liver gets sluggish, stomach sour, then your little one becomes cross, half-sick, feverish, don't eat, sleep or act naturally, breath is bad, system full of cold, has a sore throat, stomach-ache or diarrhoea. Listen, Mother! See if tongue is coated, then give a teaspoonful of "California Syrup of Figs," and in a few hours all of the constipated waste, sour bile and undigested food passes out of the system, and you have a well, playful child again.

Millions of mothers give "California Syrup of Figs" because it is perfectly harmless; children love it, and it never fails to act on the stomach, liver and bowels.

Ask your druggist for a 50-cent bottle of "California Syrup of Figs," which has full directions for babies, children of all ages and for grown-ups plainly printed on the bottle. Beware of counterfeiters sold here. Get the genuine, made by "California Fig Syrup Company." Refuse any other kind with contempt.

A pretty evening frock is fashioned of white charmeuse. The scant flounces of white tulle are edged with garlands of pink roses and are stitched to the skirt halfway between the waist and hip line.

Healthy and Unhealthy Lighting.

Gas, it may be said, vitiates the atmosphere. True. But it also helps to purify it. Its purifying power is greater than its vitiating power. Electricity does not vitiate, nor does it purify. Hear what three eminent men have said:—

Much evidence has lately been adduced to show that gas is more useful than the electric light in promoting efficient ventilation of air. It is for this, amongst other reasons, that gas is being frequently substituted for the electric light. The latest example is, perhaps, the Society of Medical Officers of Health, which has recently installed gas on its premises, after experience with the electric light.—Dr. Jamieson B. Hurry.

He would merely add that no member who had experience of their meeting room under the old conditions could deny the improvement that had taken place since gas had been substituted for the electric light and the new system of heating and ventilation had been installed.—Dr. Reginald Duffield, before the Society of Medical Officers.

I have in my mind's eye, at the moment, a hall which, in the old days was lighted by gas, and in which a large audience could, with comfort, sit through an hour's lecture, or with pleasure through a three hours' dinner, but which with the march of civilization, had its illumination changed from gas to electricity, the latter been employed with all the latest refinements to effect the lighting under the best conditions, with the result that any large gathering within its walls leads to a state little short of asphyxiation.—Vivian B. Lewes, Professor of Chemistry at the Royal Naval College, Greenwich.—nov.14

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