



2nd.

coming to hand, and have a Clean Sweep by include shipments Factory in Building, getting it out. With cent, on buying same, tic as well as economi- ties offered:



GOLDEN and SURFACE OAK OFFERED AT SPECIAL PRICES TO CLEAR.



the cheapest to the expensive Wicker, tes. All to go in this

o., Ltd., Streets.

washed, steamed and stoned, with sweetened whipped and crushed macaroons make essert.

plaf can be made with on boiled and mixed with two stewed tomatoes, and salt and pepper. and cream sauces for vege- often be dispensed with. coffee and seasoned with butter, most vegetables are in their own juices.

a cold fish can be used for ked, seasoned with pepper juice, and served with shes and French dressing. coffee butter icing, str six butter with fourteen ounces sugar until it is the con- cream; add by degrees to taste; spread between ham.

LOWER CANADA COLLEGE MONTREAL.

HEADMASTER, C. S. FOSBERY, M.A. Successes 1916. 4th Place B.M.C., Kingston. 1st, 7th, 12th Places McGill. Entrance Royal Navy. Physical Training, Manual Train- ing, Swimming, Rinks, Tennis Courts, Riding, Drawing, Music. Term commences Sept. 12, at 9 a.m.

Closing the North Sea.

A Curtain of Bombs.

We have worked out in the accom- panying drawings a system which is not only comparatively cheap to con- struct but (what is more important in this emergency) one which could be very rapidly put through. Considered as a feat of engineering and sea- manship, it would be perfectly feasi- ble to build and maintain a bomb-cur- tain to a depth of 200 feet throughout the whole stretch of water between Scotland and Norway—a distance of about 250 miles.

Since the province of this net is to act merely as a carrier for a vertical minefield, it could be built of com- mercial one-half inch steel rod. The mesh would be ten feet and the con- nection at the alternate intersections would consist of a buoyant spherical bomb, containing 20 pounds of trinit- rotol. The bombs would be built in two hemispherical halves, with holes formed in the flanges for the attachment of the lengths of wire rods. The ends of the rods would be attach- ed to the bomb by merely threading them through the flanged holes and twisting three or four turns of the rod snugly upon itself. Since the bombs would be spaced 20 feet apart and staggered, it is certain that at least one and probably three or four bombs would come in contact with a submarine that attempted to drive through. At the intersections, alter- nate with the bombs, connection would be made by a ring of the same steel rod.

Just here, we may mention that the bombs would have a sufficient positive buoyancy to carry their own load and a part of the load of the net itself, thereby making it possible to use floatation buoys of moderate size 20 feet below the surface. The net would be anchored by steel wire rope extend- ing from each side of the net and se- cured to heavy flumshum anchors.

The fact that soundings of the Nor- wegian coast show depths of from 800 to 1,000 feet, presents no serious diffi- culty; it would simply necessitate the provisions of a greater length of mooring cable.

Protecting the Barrier.

Inevitably, the Germans, on finding themselves utterly cut off from the At- lantic, would make desperate efforts to break through by sending a heavy force of ships to rush the net at high speed and carry it away. To prevent this, about a mile inside of the net there would be strung across the North Sea from coast to coast and parallel with the net, a continuous line of surface mines of the largest size, connected by cable and so ad- justed that there would be two miles of this cable to a mile of linear dis- tance, the cable being anchored at con- siderable intervals to keep it approx- imately in place. This would allow sufficient slack in the cable to insure

that any surface ship charging at it would carry the cable with it and cause several of the bombs to swing into contact against its side.

Patrolling the Barrier.

Inasmuch as the construction of a continuous wall of high explosives across the North Sea would mean the absolute defeat at a single stroke of the whole German dream of winning the war by submarine piracy, we may be certain that desperation would drive them to employ every conceivable form of attack against the bar- rier. Therefore, to make assurance doubly sure, it would be well to estab- lish, a mile or so within the last-men- tioned string of floating mines, a thor- oughly organized system of patrol by aeroplane, destroyer and motor boat. The function of this patrol would be not only to detect, and as far as pos- sible, prevent the approach of sub- marines to the net, but also to main- tain the net itself, making good im- mediately any damage or displacement which it might sustain as a result of the enemy's attack, or the stresses of wind and weather. The basic element in this patrol would consist of half-a- dozen mother ships moored in line from coast to coast at intervals of from forty to fifty miles. These would form the supply depots from which the surface craft and aircraft would oper- ate. The mother ships would consist of old tramp steamers (a suggestion of Mr. Chas. G. Curtis) which would be anchored securely by the head, heavy anchors and cables at great length be- ing used, so that the ships would rise easily in the heaviest weather. For protection against torpedo attack, each ship would be surrounded by a double line of extra-heavy torpedo netting, maintained in place by unusually heavy booms and guy ropes. At the stern of each ship, sections of the net would be arranged so that they could be lowered to admit the destroyers and motor boats when they came alongside for repairs and the replen- ishment of fuel and supplies. In pre- paring these ships as starting and landing platforms for the aeroplanes, they would be swept clear of all up- per works, smoke-stacks, masts, rig- ging, etc., and landing platforms would be built throughout their entire length, the platforms extending out- ward to thirty feet on each side so as to provide smooth runways, say 100 feet wide by some 400 feet in length.

The patrol would be in three zones —the inner one extending between the mother ships would be covered by the flotillas of motor boats; the inter- mediate zone, from twenty-five to thirty miles in width would be cov- ered by the destroyers, and the outer zone, reaching one hundred miles or more into the North Sea, would be under the watchful eye at all times of the aeroplanes.

Bomb-Curtain Versus Wire Netting.

The advantages of such a bomb curtain over a steel-wire net of suf- ficient strength to stop a 2,000-ton submarine are:

I. That because of its simple con- struction and the speed with which the wire rods could be turned out at the mills, it could be built in far less time.

II. That whatever the size and speed of the submarine or the character of its net-cutting devices, contact with the bomb curtain would mean certain destruction, or at least disablement.

In this matter of defeating the sub- marine, time is the very essence of the contract, and although a curtain 200 feet deep and 250 miles in length is a colossal undertaking, it could be built for a reasonable cost and with- in reasonable time.

Half-inch steel rods weigh about two-thirds of a pound per foot, and they could be delivered, cut to length at an English port for about \$150 per ton. Such is the capacity of our mills that the whole amount of 18,000 tons could be turned out in a couple of weeks' time. The cost of the rods, anchors and cables would be about \$4,800,000. The bomb containing 20 pounds of trinitrotol would be suf- ficiently powerful to cut a hole through the interior hull of a subma- rine or badly wreck its outer hull, ren- dering it unmanageable. The bomb would be made in two halves, and with its flanges could be stamped out of three-sixteenth plate. Manufactured on a basis of quantity-production, the bombs could be produced complete with contact points and firing mech- anism for about \$35 apiece, which would represent a total cost for the bombs of about \$637,500. Adding the cost of materials for the net and anchorages, \$4,800,000, we arrive at a total cost for materials of the whole net of about \$5,437,500, which is less than the total value of ships and car- go sunk by the submarines in a sin- gle week of the present campaign.

The firing mechanism of the bombs would have to be of special design, to prevent the whole net from being set off by sympathetic shock when one of the bombs was detonated. We un- derstand that a firing mechanism can be produced, which will resist the sudden shock from a nearby explosion, and can be operated only by a blow or push of comparatively low velocity, such as would be applied if the firing pin were struck by a submarine mov- ing at a rate of eight or ten knots. To render the bombs safe for handling by the seamen as they build them into the net, the firing pin would be locked by a cement which would be soluble in water, thereby insuring that the bombs would become alive only after they had been in water for ten or fifteen minutes.

If the approaches to the North Sea were protected by successive lines of aeroplanes, scouts, destroyers and pa- trol boats, and finally by an impen- etrable wall of bombs, it is safe to say that the Atlantic route would be rid, once and for all, of the submarine pest, and America would be free to send over- food, munitions and troops without fear of molestation.

A similar net at Gibraltar and at the Straits of Otranto (the mouth of the Adriatic), would effectively block the submarine bases of Germany's allies.

Milady's Boudoir.



CARING FOR THE HAIR.

It is a mistake to suppose that the hair is annually shed as birds molt their plumage and some animals change their coats. Human hair is perennial, and if it's owner escapes illness and takes proper care of her "crown of glory" it will retain its vigor until late in life.

Winter is hard on the hair as it is on the complexion, and while the hair grows at the rate of five or six inches a year, this growth is mostly in the summer.

While the condition of the hair is largely a matter of physical health, yet certain characteristics result from fastidious care. Unkempt, rough, lustreless, split hair is always the death knell to its attractiveness. The hair should be carefully brushed every night. Brilliances and modern pre- parations for causing the hair to curl, should be avoided as much as possi- ble.

By keeping up a good health stand- ard, the general splendor of the hair will be improved. Good blood is the best asset toward lustrous tresses.

MINARD'S LINIMENT CURES DIPH- THERIA.

Summer School for Teachers.

The Superintendents of Education (Doctors Curtis, Burke and Blackall) have organized a Summer School for Teachers to be held from July 9th to August 3rd. The objects are:—

- (1) To provide a professional course of training for those who hope to enter upon their work as teachers in September or who wish to improve their profes- sional status;
- (2) To furnish courses of lectures and instruction in modern meth- ods of teaching suitable for graded teachers;
- (3) To give to teachers practical in- struction in such subjects as na- ture study, physical culture, art, etc.;
- (4) To afford to teachers individual instruction in subjects in which they feel that they need assist- ance.

—in a word, it is planned to supply to the teachers an opportunity of better fitting themselves generally for their important work in education.

Dr. Barnes will be the Principal and will be assisted by Dr. Howard Brunt and Fred G. Morehouse, Esq., B.Sc., from Canada, as well as by certain of our own teachers, whose names will be announced later.

It is expected that not less than two hundred and fifty of the teachers will attend the school, and the Superin- tendents, who are the General Direc- tors of the school and are working with the sanction and good wishes of the denominational authorities, are con- fident that much good will result from the institution.

This Summer School has been made possible by the kindness of certain friends of education who do not wish their names to be mentioned.

Reid's Boats.

The Argyle left Placentia at 6.30 p.m. yesterday, going west.

The Clyde left Twillingate at 6.30 p.m. yesterday.

The Dundee left Musgrave at 2.30 p.m. yesterday.

The Ethie left Humbermouth.

The Glencoe at St. John's.

The Home not reported since leav- ing Lewisporte yesterday.

The Theitis reached Battle Hr. this morning.

The Wren left Clarendville at 11.35 a.m. yesterday.

Here and There.

Stafford's Essence of Ginger Wine only 15c. bottle.—may,1,tf

TRAIN MOVEMENTS.—Sunday's outgoing express reached Port aux Basques at 8.40 p.m. yesterday. The incoming mail and freight left Port aux Basques at 9.45 a.m. to-day.

Galvanized Ash or Garbage Pails, watertight, sanitary, dur- able. G. KNOWLING. June26,31,etd

CAPT. CLAYTON FOR GRAND FALLS.—Rev. (Capt.) A. Clayton left by to-day's express for Grand Falls where he has been invited by the Grand Falls Patriotic Association to address a public meeting.

FARMERS.—No one has a better chance of making money than Farm- ers if they force their crops with Nitrate of Soda bought from TESSIER & CO.—jly2,3,etd

BANKERS TURN UP.—Deputy Min- ister of Customs LeMessurier had the following message to-day: "Two men who strayed from the schooner Mary, Hodder, master, of Marystown, arrived at Bay Bulls this morning in their dory from the Banks." These men strayed away from their vessel in a thick fog a few days ago.

Buy a bottle of Stafford's Phorotone Cough Cure for 25c. and receive a numbered ticket. See advertisement.—may,1,tf

NOTED CLERGYMEN LEAVE.—Revs. Moore and Hull, Canadian Meth- odist ministers who were here at- tending the Methodist Conference, left by to-day's express en route for home. Both the reverend gentlemen expressed their pleasure and hearty thanks for the kindness that has been shown them by the people of St. John's.

WANTED.—Good Needle- hand for repairing; also Pants and Vest Maker. Apply to SPURRELL BROS., 365 Water Street.—June30,31,etd

HOLIDAY TRAINS.—Those who desire to spend to-morrow in the country can take passage by the fol- lowing trains: To-day—Tropasey train, 5 p.m.; Carbonate train, 6 p.m.; Troutons' train, 7 p.m. To-morrow—Carbonate train, 8.45 a.m.; Express train, 12.30 p.m. Return can be made by the usual train to-morrow or Thursday morning.

Superior Single Gut Cast Lines, 50c. to \$1.25. Lower Grades, 7c. to 40c. Best Twist- ed Gut Lines, 50c. and 90c. S. E. GARLAND.—jly2,2i

A BAD GIRL.—An unfortunate motherless girl, who has given her father and the police much trouble lately, was found in a sparsely clad state by Const. Green shortly after last midnight. She is 13 years of age and usually runs out of doors late at night and keeps company with unde- sirable females who live near her. She stated in court to-day that she was not treated unkindly by her fa- ther, who was sent for by the judge to have an interview with a view to trying to keep the girl straight.

We still retain our reputation for Superior Fishing Tackle. We have everything you need and all at right prices. S. E. GARLAND.—jly2,2i

We make special men- tion of our Wafer Sliced Ham and Bacon and other Cooked Meats.



We carry all kinds of Canned Fruit of the best grades and the reputa- tion of these goods is unsurpassed. Bright ripe fruit with heavy rich syrups.

AYRE & SONS, Ltd. CAMPING OUT SUPPLIES.

DELICIOUS COOKED MEATS THE BULL'S EYE OF QUALITY



The increasing de- mand for these goods is an unmistakable indica- tion of their genuine popularity.

Our canned Cocoa and Milk, Coffee and Milk, Chocolate and Milk, Con- densed Milk, St. Charles' Cream are h e a l t h f u l body-building products; and our Bottled Summer Drinks are cool and in- vigorating.

ORDERS CAREFULLY DESPATCHED BY BOAT, RAIL OR CITY DELIVERY.

The Quality of Our BLOUSES!

Our White Lawn Blouses are neat, natty, trim, and really very chic, while being of English make are perfect in fit; the extra special value of their texture giving the best of results, as regards their wearing and lasting powers.

White Lawn Blouses.

Prices: 85c. to \$1.50 each.

We are also showing a very tempting assortment of WHITE EM- BROIDERED LAWN COLLARS at 25c. each, just now at

A. & S. RODGER'S

American SAILORS,

Large Straight Rims.

In Nigger Brown, Green, Navy and Black,

\$2.00 each

Showing in Our Window To-Day.

S. MILLEY