

CASINO! MONDAY, TUESDAY and WEDNESDAY
CURTAIN 8.30 P.M. SHARP.
MATINEES WEDNESDAY and SATURDAY.

L. E. Perrin Presents THE ARLIE MARKS PLAYERS

"THE SINS OF THE FATHER."

Made for Laughing Purposes Only. Four Acts of Real Entertainment.

5-ACTS OF REFINED VAUDEVILLE-5. INCLUDING THE SCOTCH LADS AND LASSIES



SEATS NOW SELLING AT HUTTON'S.
Reserved \$1.00, 75c. and 50c.
Balcony 30c. Pit 20c

WEDNESDAY MATINEE
Reserved 50c. Sec. 4, 5, 6 30c.
Balcony 25c. Pit 15c.

THURSDAY'S PLAY:
"MOOTHER'S IRISH ROSE."

The Ocean Around Newfoundland

By A. G. HUNTSMAN, Director of Atlantic Stations, Biological Board of Canada.

Below the level of the sea's surface the continent of North America extends eastward past Newfoundland towards Europe and out into the Atlantic for more than three hundred miles. This submarine land, or "continental shelf" as it is called, ends in a submarine cape, to which the name of Flemish Cap is given, and the top of which is not far below the surface of the sea. This shelf continues with a width of from one to two hundred miles northward along the coast of Labrador toward the Arctic and southward to and along the coast of the United States. At its margin the bottom drops abruptly to depths of a mile or more to the bed of the ocean.

The submarine land resembles dry land in consisting of hills and hollows, extensive plains and long broad valleys. There are no forests to clothe the hills, no grass to cover the plains, and yet there is abundant life. The water stops the light so quickly that only the layers near the surface can support plant life, consisting of the variegated seaweeds attached to the rocky shores and shallow bottoms, and an enormous quantity of minute microscopic forms floating everywhere. On these plants directly or indirectly an extraordinarily abundant animal life of the most bizarre types feed—the floating forms, and the very many kinds fastened to, or more or less buried in, the bottom. Even the deepest parts are peopled, being fed by a steady slow rain of minute food particles from the upper layers.

As on land the hills weather away and the fragments gradually wash down or roll to lower levels, so in the sea the water action during storms dislodges from the higher parts mud, sand, gravel, and stones, and slowly wears away the rocks, the loose material moving more or less steadily toward the deeper water. On land the soil collects in the hollows and the valleys to render them fertile, so in the sea the deeper parts of the bottom become covered with a fine soft mud.

What is the significance of this continental shelf and whence has it come? The valleys and the ridges correspond with those to be seen in the adjacent land. The St. Lawrence River is continued by the submarine Laurentian valley or channel which cuts across the Gulf of St. Lawrence, passes through Cabot strait, and continues to the side of the continent where it connects with the open ocean, and where its bottom is nearly two thousand feet below the surface and dry land? Many facts support such a view. There is evidence that parts of the coast are still sinking, stumps of trees being found below the present surface level. It is the ocean valleys around Newfoundland that interests us now.

ONCE PART OF CONTINENT.

It need not be thought surprising that Newfoundland and its fishing banks should have been the part of North America that was first known and exploited by Europeans. Jutting out far into the Atlantic they could not be overlooked. The early records are but vague and imperfect. The Norsemen in the ninth century reached Iceland, then Greenland, and still later they crossed to the main part of North America. The best interpretation of their American voyages has been made by Mr. W. A. Munn. Helluland with its flat rock and inland snow-covered mountains is at the mouth of Hamilton Inlet, Labrador, Markland with its trees, its level land, its "wonder-strand," and its Keelness is the Porcupine coast with fifty miles of sand beach some distance south of Hamilton Inlet. Finally Wineland with its grassy meadows, its vines, its wineberries, and its (comparatively) long days is Pistolet bay at the northern extremity of Newfoundland, which seemed a land of plenty to those who know only the bleakness of Iceland and Greenland. From Leif's booths at Pistolet bay it was possible to go west to the white sands (Blanc Sablon) at the inner end of Belle Isle strait, east and north to Markland, and east and south to "Hop." Here could be met the Eskimo, with his

kayaks and double paddles, which seemed to revolve when in use. Belle Isle strait with its strong currents and Belle Isle in the middle of the outer end was the Norsemen's "stream-irth." But where were the grapes, that the Norsemen found, and grow no farther north than Massachusetts? The Norsemen speak only of "vinber" or wineberries, that grow in bunches. A species of viburnum, called squashberry in Newfoundland, grow abundantly in Pistolet bay, and its bunched red juicy berries are still used for wines and jelly. There is no need to take the Norsemen in their primitive vessels, twelve hundred miles farther. They lived for a while on Belle Isle strait, that is still a highway from Europe to the American continent, being on the shortest route from the British Isles to Canada.

In the 16th century, after the Cabot voyages to North America, Newfoundland and its banks became the resort of increasing numbers of Norman, Breton, and Basque fishermen, who carried back rich cargoes of codfish to supply food for the meatless days of religious Europe. Jacques Cartier on his voyage of discovery in 1536 was in known waters sailing north along the coast of Newfoundland and in through Belle Isle strait, which was thought merely to lead into a bay. That strait again figured prominently, forming the highway for the discovery of Canada. And still that Strait, in spite of its icebergs, its fogs, and its narrowness, is, when open, almost the exclusive route for traffic between the St. Lawrence and Europe.

Like Newfoundland in general the Strait of Belle Isle still bears in its place-names records to its early occupation by the French, who have for the most part disappeared. There are Quirpon, Pistolet Bay, Belle Isle, Chateau Bay, Point Armour, Foreau Bay, L'Anse au Loup, Blanc Sablon, and many more. Not a few names are so changed as to be nearly unrecognizable. L'Anse a Mide (Midday Cove) has become Lancelmitten or Lancy Meadows, and in southern Newfoundland Bale d'Espoir (Hope Bay) has become Bay Despair!

INTERESTING REGION.

The Newfoundland region is not only interesting geographically, geologically, and historically, but it also has waters of unrivalled interest to the oceanographer. To it comes from the north a coastwise current, which bears enormous fields of ice and icebergs, consists largely of the coldest waters that can be found in the sea, and contains a host of Arctic animals; and towards it presses from the south the tropic water, which is warm and very salt, and carries Sargasso weed as well as a host of tropical warm-water forms of life. These two bodies of water, so diverse in character, meet near the southeastern tip of the Grand Bank at the place where the

Titanic struck an iceberg and sank. They mix together and the resultant heavier mixture sinks into the depths to make room for more mixing in a continuous process, which draws in both kinds of water to the sinking point.

There has been a great divergence of opinion regarding the movement of the water on the continental shelf around Newfoundland. All are agreed that the Arctic or Labrador current sweeps down the east coast of Newfoundland to the Grand Bank, but there is no agreement as to what happens to the west and south. The popular opinion is that cold current continues along the coasts of Canada and the United States, and is responsible for the cool climate of those coasts as compared with Europe. On the other hand, the claim has been made that the coastal water, while not made warm by water coming from the south, nevertheless gives no evidence of being colder than would be expected from its latitude. Salt water will cool considerably below the freezing point of fresh water without freezing. Such ice-cold water not only makes up the Labrador current east of Newfoundland but forms in the Gulf of St. Lawrence a layer about 300 feet thick between the warmer bottom water and the much warmer (in summer) surface water. This middle layer of ice-cold bank water is also found covering the banks outside Cape Breton island and in a narrow diminishing strip close to the mainland of Nova Scotia.

Whence comes this water? Is it formed locally from the cooling effect of winter, or does it come from the Labrador current? Admiral Bayfield, who charted much of these waters, believed that a branch of Arctic current entered the Gulf through the Strait of Belle Isle and left it by Cabot strait, and so explained the cold water of the region. This view led to the well-known project to dam the Strait of Belle Isle and shut off the Arctic influence. Dr. Bell Dawson on the basis of extensive current measurements concluded that scarcely more water flowed in through Bell Isle strait than flowed out, and that therefore the influence of that Strait was negligible. He suggested that part of the Labrador current came around Cape Race, along the south coast of Newfoundland, and so into the Gulf through Cabot strait. If such movements are important for their secondary influence on the climate, how much more important must they be in determining the valuable fisheries of the region. Such briefly has been the problem that led the North American Committee on Fisheries Investigations to recommend an expedition to Northern Newfoundland to study the waters and their movements, particularly in relation to the cod fishery.

(To be continued).

Carriage of Goods By Sea Act

The following circular has been issued to the Trade by the Reliance Marine Insurance Co. Ltd.

Dear Sir.—As you are aware, the above Act came into force on the 1st inst., and will be incorporated in all Bills of Lading issued in Great Britain or Northern Ireland, in the future, and we particularly desire to call your attention to Article III. Section 5, which deal with the question of claims against the Shipowners for loss or damage to cargo while in their custody.

It will be observed that notice of loss must be given to the Agents of the Ship at Port of Discharge before the goods are removed, or within three days from such removal if loss or damage be not apparent at that time, and when this is done, a period of twelve months is permitted in which claims can be lodged. Section 5 prevents any clause contracting themselves out of liability for negligence, fault or failure, and this therefore renders them liable for loss by theft, if same can be proved on discharge. It will also be noted that any clause in the Bill of Lading entitling the Shipowners to the benefit of insurance is not permitted, and therefore will be null and void.

You will therefore appreciate it is highly important all your Clients should be notified of these amended conditions of carriage, and it is essential that they do not accept delivery of their goods and give a clean receipt unless it is clear there is no claim against the Shipowners. In the event of any right of recovery having been lost owing to their neglect to take the necessary precautions, the derelictors will be constrained to take this into serious consideration before any claims for loss by theft can be dealt with.

Yours faithfully, W. W. HARRIS, Secretary.

Try the New Cuticura Shaving Stick. Freely Lathering Medicinal and Emollient.

McMurdo's Store News

WAMPOLES. Children need the vitamins in Wampole's Extract of Cod Liver. Children who seem to be at a standstill, lacking in energy or vitality, and convalescents who do not improve readily, get just the needed tonic stimulant effect from a short treatment with Wampole's Extract of Cod Liver. Price \$1.20. Pine Tree Lozenges are pleasant, strongly antiseptic and germicidal, and act as a preventative of all throat trouble. Price 30c. Excellent as a dinner hat is the draped turban of metal brocade or satin.

Memorial Tablets for the C. of E. Orphanages

On Saturday two Memorials to the Benefactors of the C. of E. Orphanages, one for Shannon Munn and the other for Exon, were conveyed to those institutions, having arrived recently from England. They are made of oak and measure about nine feet long and six feet high, and are the work of the famous firm of Whipples, London. Simple in design, they are beautiful in their simplicity and the workmanship shows in every detail the hand of a master craftsman.

Across the top of the T. R. Job Memorial at Exon, standing out in bold relief, is the following inscription:—"This Building and Estate, known as the T. R. Job Memorial, were presented to the Church of England Orphanage in the year 1918, by the Family of the late Thomas Raibles Job in Loving Memory."

The lower part of the Tablet is divided into several panels, over which is inscribed:—"Bequests towards the Church of England Orphanage Endowment Fund." In the panels are carved the names of the Benefactors, with the amount of each bequest, followed by the date. The same arrangement is followed on the Memorial in the Shannon Munn Orphanage, with the inscription across the top reading as follows:—"This Building and Estate, known as Shannon Munn Memorial, were presented to the Church of England Orphanage in the year 1919 by Mrs. J. S. Munn and Sir Edgar Bowring in loving Memory of John Shannon Munn and his little daughter Betty, who lost their lives in the wreck of the S. S. 'Flicke'."

The tablets will be erected in the halls of the Institutions at an early date.

Here and There

Gent's good English Suits, at SMALLWOOD'S.—Jan 23, 11

LAST NIGHT'S FROST.—The thermometer at the Valley Nurses, Ltd. last night registered four degrees of frost.

The Acme of Perfection—Power's High Grade Home-made Candy.—Jan 29, 101

CARD TOURNAMENT.—The fourth of a series of card tournaments under the auspices of the Star R.R. & B. Committee, takes place at the Society's rooms to-night.

TO-NIGHT.

Save Your Eyes. See H. B. THOMSON, Opt.D. Optometrist and Optician, Hour 7 to 8. Residence: 191 Gower St. (Near Victoria Hall) Phone 1307.

A Pulsing, Heart-Stirring Drama At the Nickel Monday

Elinor Glyn's "HOW TO EDUCATE A WIFE" featuring MARIE PREVOST, MONTE BLUE, Claude Gillingwater, Betty Francisco, Creighton Hale. WARNER BROS Classics of the Screen.

ADMISSION: Night, 30c. Afternoon, 10 & 20c. THURSDAY:—"CORNERED," a Warner Bros. Super-Special, with John Roche, Raymond Hatton and Cissy Fitzgerald. COMING:—"THE DARK SWAN," a gigantic Special.

Relieve That HEADACHE MUSTEROLE Gently Rub With

MUTT AND JEFF FOR ONCE THE LITTLE FELLOW PROVES HE HAS BRAINS. YOU BALLED UP THINGS BY LANDING US IN JACKSONVILLE ILLINOIS INSTEAD OF JACKSONVILLE FLORIDA AND NOW YOU'VE SET OUR LAST THREE BUCKS WITH A COP THAT WE CAN COOK TWO MILES A MINUTE OUT OF HIS MOTORCYCLE! YOU'RE A NUT! OFFICER, MY FRIEND WANTS TO CALL OFF THAT CRAZY BET! I DO NOT! THAT BET STANDS! FINE! EASY MONEY! IT'S TEN MILES TO THE OLD MILL AND I RETURN IF YOU AIN'T BACK HERE IN FIVE MINUTES I WIN! RIGHT! STOP! IT'S MUTT! WE'LL NEVER DO IT! I WIN, BUT I WONDER WHAT'S DETAINING THEM? AND WHEN WE GET TO FLORIDA WE'LL EXPRESS THE MOTORCYCLE BACK TO HIM! OOWAH!!! JEFF, HOW DID YOU THINK OF THE IDEA? I COULD KISS YOU!

Vertical text on the right edge of the page, including a crossword puzzle grid and various small notices.