### No. 14-- THE C.N.R. MOUNT ROYAL TUNNEL

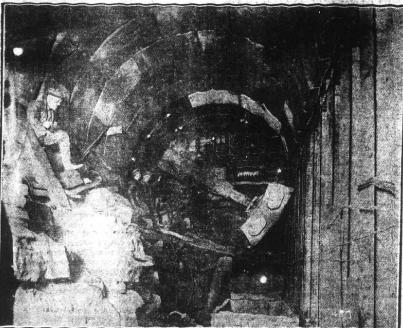
More than two years ago, when Mount Royal was the McGill campus to a point about under Burns heaval placed it in, some engineers, after examining the surface of the mountain and making various records of these examinings, commenced certain excavations and other operations. The Canadian Northern tunnel, which connects the centre of the city with its behind-the-mountain suburbs, resulted, and full sized tunnel extends towards Dorchester street; the appearance of the earlier stages of the work. ost of the remaining mile and a tenth is complete, too.

warrant speed. Records were made, however, in the ally twelve feet or so in height above the floor. An

still in the condition that Nature's last local up- Place this work has been finished, and the shield is now approaching Catheart street. Below that street the tunnel will change into an open cut, the streets being carried on bridges.

Past the shield work the tunnel sis, in differen stages of completion, but little more actual excava tion needs to be done. The benches remain in a fer to-day that tunnel is in its final states of construc-tion. For two miles from the city of Mount Royal the inal heading is still in existence. The only example of

Near this section there is the drill carriage which was designed and constructed on the spot to support The tunnel could have been built in a much shorter the drills used in the beach excavations. Vertical ime, but of late conditions have not been such as to holes are drilled through the benches, which are usu-



The shield in operation, showing hydraulic erector placing concrete block in arch. The wall on the right divides the tunnel in half

earlier stages which, had it not been for the results iron pipe supported on pegs in the face of the rock is of the war, could probably have been followed up by arranged at the side of the trinnel, and in the centre the establishment of a new record for building a the rest of the carriage on the tracks can be moved to compete tunnel of that length. As it is the excava- any part of the work. The side supporting pipe at tion will be finished by the spring, and tracks will the rock face can be moved to new positions as nebe laid and trains running on a regular schedule by cessary.

There are two particularly interesting features are what has been blasted from the roof and from about the construction work at present. One is an the benches, and the shovel is now digsing its way implement known as a shield, and the other is a through them towards the city. Although these piles steam shovel which is digging out the shattered rock, of rocks are in places twenty feet above the ground which can be as high as 650 feet a week. The shield a week.

cavation which is through earth or very soft rock, The tunnel was started as an 8 x 12 bottom head- shaft at Maplewood avenue in Outremont.

Burnside Place to Catheart street it is yet to be done.

The shield consists of a cutting edge shaped to That part of the tunnel where the lining of conconform to the outline of the tunnel roof. Behind crete which is being erected by the shield was acted cutting edge is a steel envelope of similar shape, cressary is divided in half by a central wall of steel while two of these hydraulic jacks push them into only a short time.

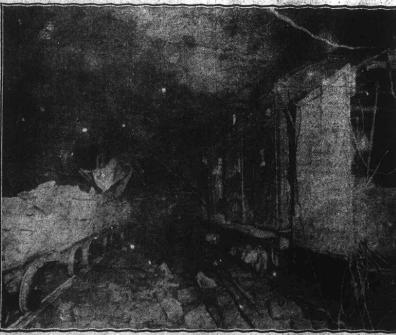
Further on huge piles of loose rock remain. They shovel is approaching the city at a rate of speed level, the shovel can advance, at the rate of 650 feet

is used near the city and where it places in position. Apart from the methods of construction, as in-the concrete blocks that line that portion of the ex-stanced by these implements, by far the finest view of the tunnel is obtained from a point under the ing. This was later enlarged to a height of 23 feet mile towards the Model City the tunnel extends. It and a halk the upper portion being widened to 31 is the full height of more than 23 feet to the lofty feet. "Bonches" were left at each side of the lower arched roof, and 31 feet wide; and at the end can be

half. Later these were blown away, giving the full blainly seen a small slit of pale blue daylight, sized tunnel of 23 and a half by 31 feet. This entermine larging operation was carried on at different parts of finished tunnel, the ground dry, the walls even of the work at the same time.

At McGill campus the shield work starts, everythat point is the steam shovel, and the dirt of the thing beyond that being in rock. From the campus construction work, and the screech of the drills and Place the shield work is completed, from an occasional explosion, as a charge of dynamite re-

beneath which project a series of hydraulic jacks, and concrete. Apart from this however no support parallel to the turner sale. Concrete blocks, made or wall of any kind has been needed. At such in moulds in part of the turner works, are picked up points as lining becomes necessary to support the by a steel arm called a hydraulic erector, and held roof concrete arches will be built; but this will take



The steam shovel which is used to dig away the shattered rock.

acc. In this way an arched lining of concrete At the further end of the tunnel the excavation de- in a few minutes reach of the business part of Mont.

ding wall of steel and concrete. From The two miles from the west portal only need per-

# NO GERMAN TOYS TO BE SEEN

Hundrede of Thousands of Home and Overson Manufacturers and Dealers Have Boon Invited.

in the blatery of our commerce, an Exhibition is to be held in London where all products of Germany, Austria and Hungary will per rigidly excluded.

The Toy Fair and Market, to which only members of the wholesale and retail trade will be admitted, is to be opened at the Foyal Agricultural Hall, London and Market 16.

don, on March 16, for ten days, by the international Trade Ethibitions, a city of London firm which has organized countless displays.

in view of the fact that our encouses in the Euro-pean war have lost their place as producers in the world's markets, manufacturers in Britain and in neutral countries have laid down greatly increased and improved plant for the supply of toys and games, with the result that new industries have been suc-Gessfully opened up.

Articles, small in themselves but highly important

in the bulk, are no longer "made in Germany," indeed, the extension of ideas during the past six months has proved that the Germans had become sterotyped in their output.

terotyped in their output.

This will be fully demonstrated at the forthcoming Toy Fair and Market, to which hundreds of thousnds of home and overseas manufacturers and dealers have been invited.

This Toy Fair and Market will, in March, 1916, be repeated as an important section of the London Fair and Market, which is to be a British Exhibition on the ines of the Leipzig Fair

#### UNITED STATES THIS WEEK SHOW A BETTER BUSINESS SITUATION.

Boston, February 6 .- Business picked up some that in January, and even greater improvement is looked for as the year progresses, but there is a wide diversity of opinion as to when conditions will again become normal. A very gratifying feature of situation is the big foreign business which is being done, which resulted in a big trade balance in ou favor in January-estimated to be over \$130,000,000.

It is in export lines that the greatest activity now found, and apparently this condition is likely to obtain for some months. For strictly domestic business still remains very inactive. In steel there is some improvement, and even more is expected as the railroads become freer buyers, but the big steel plants continue to run far below normal.

however, a moderately confident feeling that within the next month or two steel production will be still further stimulated. The depth of the de pression in steel during the past three months leaves of course, room for big improvement without any thing like a boom being attained.

In other metal circles, notably copper and spetter there have been still further price advances this week, particularly in spelter, where a large demand nd short supply has practically created Moreover, there seems no present prospect that spel-ter prices are likely to be shaded in the immediate

A broad view of the business situation makes for confidence for the future, and when activity set in i ought to be healthy, because there has seldom been when surplus stocks of merchandise were smaller than at present.

#### MOVEMENTS OF CURRENCY.

York, February 6.-Ordinary reported move tents of currency this week indicate a gain in cash the banks of about \$12,000,000.

The banks received from interior .. . \$10.819.00 Transferred through sub-Treasury to
New Orlean-

2.118.000 Ordinary disbursements by sub-Treasury

including payments on account of . 31,963,000 ment by banks for customs, internal.

Gain on sub-Treasury operations . . . . . Total gain ..... 12,081,00

#### SALE OF NEW YORK STATE BONDS. Albany, February 5.- The meeting of the Com-

missioners of the Canal Fund, composed of elective State officers, will be held early in the coming week, when the Comptroller will be authorized to advertise the sale of State bonds and the amount of such issue will be determined. Inder the law the earliest date at which the sale

can occur is March 11th, and the prevailing opinion now is that the sale will not take place before the fore part of April.

#### OUTREMONT TO BORROW \$700,000.

bonds are being asked by the Town of Outremont. The proceeds of the bonds are to be used in constructing local improvements and to liquidate a floating debt of \$508,165.

The last issue made by the municipality was in 1912, when \$450,000, 42 year 41/2 per cent. debentures were sold at 102.02.

#### WINNIPEG STOCK EXCHANGE.

Winnipes, Man., February 6.-The committee of management has decided to re-open the local Exhange on Monday.

Minimum prices will be set and all sales must re ceive the approval of the committee.

#### INCREASES IN CAPITAL

Ottawa, February 6 .- The stock of the Paterso Manufacturing Company has been increased from \$50,000 to \$500,000, and that of the St. Simeon Lum ber Company from \$290,000 to \$500,000.

manent track laid to make a completed railway tunnel. Through the whole work, however, as far as the shield work has advanced, a single track line could be run at present, with the exception of the 200 fee of original heading. The enlargement of this will be but a matter of days.

The actual laying of track will take a very short time. It will be commenced in time to have trains running by the fall. Then the tunneling of Mount Royal will have become an accomplished and completed event. Montreal will have a new railway e rance, a new suburban district will be brought withblocks is built up.

A cement gun and grout machines are next used curtivill be covered. In the city there will be an open to the first least took this biggest engineering project that Montreal has known will be entered, there will be an open took this biggest engineering project that Montreal has known will be entered, there and the actual earth or soft be sarried on bridges, so that traffic will in no way be monument to their ability that could have been continued to the most lasting monument to their ability that could have been continued to the most lasting monument to their ability that could have been continued to the minutes reach of the business part of Montreal has been minutes reach of the business part of Montreal has been minutes reach of the business part of Montreal has been minutes.

## The War Day by Day

ndon, February 5.—Frobably for the first time June 25.—Archduke Francis Ferdinand assassinated.

s history of our commerce, an Exhibition is to be July 25.—Austria sends an ultimatum to Servia.

July 21 - Russia orders general mobilization.

August 1 - Germany declares war on Russia - French Cabinet orders general mobilization. August 2-German forces enter Luxemburg-Germany

addresses ultimatum to Belgium demanding free passage for her troops. nds ultimatum to Berlin, de-

manding unqualified observance of Belgian neu trality-Germany rejects ultimatum-German troops begin attack of Liege-President Wilson issues proclamation of neutrality.

igust 5—England announces existence of state of war with Germany—President Wilson tenders his good offices to the warring nations. August 7-Germans enter Liege-French invade sou

August 8-Italy reaffirms neutrality

August 15-Austrians enter Servia-Japan sends ultimatum to Germany.

August 17—British expeditionary force completes its landing in France—Beginning of a five days' battle in Lorraine, ending in repulse of French across frontier with heavy loss-Beginning of five days' batttle between Servians and Austrians on the Jadar, ending in Austrian rout.

August 20-Germans enter Brussels-Belgian arm; retreats on Antwerp.

August 23-Germans enter Namur and begin attack on Mons-Austria announces victory over Russians at Krasnik.

August 24-British begin retreat from Mons-Zeppe lin drops bombs into Antwerp.

August 25-Mulhausen evacuated by the French. August 26-Non-partisan French Cabinet organized-

Germans take Longwy. August 27-Louvain burned by Germans-Japanes blockade Tsing-tau.

August 28-British fleet sinks five German warships off Heligoland. August 29-Russians defeated in three days' battle

near Tannenberg. September 2-German advance penetrates to Creil about 30 miles from Paris, and swings eastward French centre between Verdun and Rheims ven back-Seat of French Government remov ed to Bordeaux.

September 3-Russians occupy Lemberg September 5 Battle begins south of the Marne and

east of Paris in which the German right wing ushed back, followed by a general retreat. September 7-Maubeuge taken by the Germans.

September 12 German retreat halfs on the Alsne September 16 Belgian commission protests to Pre sident Wilson against German "atrocities. September 20 Germans bombard Rheims and injur the famous Cathedral.

September 22-German submarine sinks British crais ers Aboukir, Cressy, and Hogue in the North Ser -Russians capture Jaroslav and invest Przemysl September 26-British troops from India land at Mar

September 28-Germans begin siege of Antwerp. ctober 2-End of week's battle at Augustowe which the Germans are defeated and forced ou of Russian territory

October 5-Belgian Government removed from Ant werp to Ostend. October 7-Bombardment of Antwerp begins-Japan

ese seize Caroline Islands. October 9-Antwerp'occupied by the Germans October 10-French win cavalry engagement around

Hazebrouck. October 12-A Boer commando in the Cape Province

mutinies. October 13-Belgian Government transferred from October 14-Allies occupy Ypres-Batttle begins of

the Vistula. October 15-Ostend occupied by the Germa October 16-British cruiser Hawke sunk by Germa

October 18-Belgian army effects junction with Allied left, batttle on from Channel coast to Lille

october 20-English gunboats participate in battle Nieuport on Belgian coast October 24-Ten days' battle before Warsaw ends in

German defeat. October 26-After a week of furious fighting Germa assaults on Allied line from Nieuport to Ypres slacken

ober 27-British dreadnought Audacious sunk o the Irish coast-South African sedition spreads, Gen. De Wet in revolt-Russians pursue retreat ing Germans and re-occupy Lodz and Radom. October 28-Berlin admits retreat from Warsaw and

October 29-Turkey begins war on Russia by nava attacks on Odessa, Novorossysk, and Theodosi

Octomer 30-Col. Maritz, rebel leader in Cape Prov November 1-A squadron of five German cruisers, including the Gneisenau and Scharnhorst, defeat

a British squadron off Coronel, on the coast of Chill-Turks bombard Sebastopol. November 3-German squadron makes a raid to Brit-

ish coast near Yarmouth. November 4-German cruiser Yorck strikes mine in

November 5-England and France declare 2 war on January 28.-First fighting in Egypt near Suez Canal Turkey-Dardanelles forts bombarded-Russians

re-occupy Jaroslav. November 6-Tsing-tau surrenders to the Japanese November 7-Russians reach Pleschen in Silesia and

enter East Prussla. November 10—The Einden defeated, and forced ashore at North Keeling Island in Bay of Bengal, by

Australian cruiser Sydney. vember 11—Germans capture Dixmude —German submarine sinks British gunboat Niger off Deal. vember 12—Russians occupy Johannisburg in East Prussia—Russians defeated in Vlotslavek.

November 13—Fighting renewed at Nieuport. ovember 15-Russians defeated at Lipno and Kutno-Battle in Flanders attains climax with charge of the Prussian Guard against Ypres.

nber 16-The Sheikh-ul-Islam at Constantinople s a Holy War against the Allies-British House of Corn mons votes a war loan of £225. mber 17-Berlin announces Austrian victory over

Servians at Valjevo. ember 18—French capture Tracy-le-Val-Naval battle in Black Sea, in which Turks and Russians

th claim victory. both claim victory.

rember 19—House of Commons votes a new army
of 1,000,000 men—More than 1,100,000 men already of 1,000,000 men attore of Territorials—Germans pierce Russian centre south of Lodz.

mber 23-Russians surround two German corps south of Lodz. vember 26-British battleship Bulwark destroyed explosion in the Medway River-Germans

break through Russian circle near Lodz. ember 29-Russians fail in assault on Darkeh. men in East Prussia. December 1—German Reichstag votes new credit of five billion marks-King George visits the army

in Flanders. ember 2-Austrians take Belgrade by storm-Gen. De Wet captured.

cember 3-London War Office announces landing of Australians and New Zealanders in Egypt Italian premier in Parliament finds no reasons for a change of policy-Servians turn or trians in three days' battle which ends in a no-

table Servian victory. cember 6-Germans occupy Lodz. December 7-French attack to the north of Nancy repulsed.

ember 8-The German squadron under Rear-Admiral von Spree is attacked in the South Atlan-tic off the Falkland Islands by a British fleet under Admiral Sturdee, and the cruisers horst, Gneisenau, Leipzig and Nurnberg are sunb

-British occupy Bussorah, in Asia Minor December 9-Gen. Beyers, Boer leader, killed at the Vaal River.
December 10—The Goeben bombards Batum

December 13-British submarine sinks battleship Messudieh in the Dardanelles December 14—The Breslau bombards Sebast Servians capture large Austrian rorces

cember 15-Austrians evacuate Belgrade December 16-German cruisers bombard S. Hartlepool, and Whithy on English coast ecember 17-Berlin announces general Ruse

treat in Poland-Survivors of Emden capi December 18-Egypt proclaimed a British p ate-Gen. Botha regards Boer rehaulter December 20-26-Severe fighting between German and Russians on the line of the Bzura Rive ecember 22-French Parliament assemb ier Viviani declares for war to the end. cember 23-French Chamber votes war

eight and a half billion francs. ember '25-Bfitish' naval and aerial raid again Cuxhaven-Russians defeat Austrian Tuchow near Tarnow-German offensive tral Poland halted-Italian marines occurs

cember 28-French occupy St. Georges near Nieuport.

December 30-German aeroplanes drop bombs in Dunkirk, 1915:

nuary 1-British battleship Formidable sunk in the

Channel. French capture Steinbach, case

Russians win accisive victory

Turks in the Caucasus at Sarikamysch and Ar dahan-Russians overrun Bukowina and enter Carpathian passes

January 8-French advance across Alsne north of January 10-German aeroplanes bombard Dunkirk

January 12-Severe fighting around Cernay in Alsace January 13-Turks occupy Tabriz-Count Berchtold resigns. anuary 14-French driven back across Aisne River

east of Soissons, after a week's battle-Russlan advance in Mlawa region.

January 15-British victory at La Basse reported Germans being forced back one mile. The French cut off from reinforcements by floods, driven January 16-French partly retrieved losses-News of

gallant bayonet charge by Princess Patricks Infantry reached the outside world. anuary 17-Russian official statement told of exter-

mination of 11th Turkish army corps. anuary 19-German Zeppelins raid England killing four civilians and damaging property with bombs nuary 20-British Government refuses to guarante "Dacia" will not be seized but offers to buy

anuanry 24.—British fleet under Vice-Admira David Beatty defeated German squadron in North Sea, sinking the battle-cruiser Bluecher. light cruiser Kolberg.

January 25 .- Russians occupy whole of Jacobini district in Bukowina after temporary retirement and loss of entire regiment. Strong German army defeated in second battle of La Bassee.

January 26 .- All stocks of wheat in Germany scized by Government. Jade Bay and sinks -Heavy fighting around January 27 .- Loss of many thousands of Germa

marks Kaiser's birthday reported. January 30 .- German submarine U .- 31 sank three

British steamers in the Irish Sea, and two others sunk in the English Channel. February 2.- British again repulsed Germans at La

Bassee, and advanced. British fleet ordered to treat cargoes of grain and flour consigned to Germany and Austria as conditional contrabat February 3.-British Parliament, at opening of session, decided to confine itself to Government

February 4 .- Announcement made that finances Britain, France and Russia for the purposes of war will be pooled.

Germany announces that all British water be treated as war zone after February 18.

## THE HOME BANK OF CANADA

NOTICE OF QUARTERLY DIVIDEND.

Notice is hereby given that a Dividend at the rate of SEVEN PER CENT. (7%) PER ANNUM upon the paid up Capital Stock of this Bank has been declared for the THREE MONTHS ending the 28th of February, 1915, and that the same will be payable at the Head Office and Branches on and after Monday, the lat of March, 1915. The Transfer Books will be closed from the 15th to the 28th of February, 1915, both days inclusive.

By Order of the Board, Colors

Toronto, January 13th, 1915.

JAMES MASON, General Manager.

OL. XXIX. No. 230

Wheat, After Streng Reached the Pinnacle of Years, \$1.67

FLOUR PRICES ALSO

of Market Makes it Dangerou by Brakers-Exports Were He

Leased Wire to The fournal go, February 6.-The wide ces during the present week ha llel in the history of the various throughout the country. In this, grain market, May wheat cros gord of \$1.60 a bushel established in ord of state a vesterday at \$1.67.
he rise was followed by a sharp advesto the high price of \$9.50 a barrel best grades. A remarkable feature of que wheat market is that advancing

alled to check the foreign buying. with the price no object it is not su rican holders of wheat are getting a possible from foreigners. Corn and oats naturally have gone in advance in wheat and have soared to

s for years. That the wheat market at the present dangerous condition for trading, is fact that many of the grain commi e now making as high as 50 cents a bu on transactions which has had the e ing the volume of speculation and rable taking of profits. Some house ain business refuse absolutely to accep wheat which has turned some ord er grains, particularly corn.

(C. M. Withington, Special Corresp New York, February 6 .- The most ser s and the highest prices that wh ned in many years were scored duri ek in the various grain exchanges of greater importance to the ultima the almost general advance throughout States in bread prices. Flour rose to \$8 he east, the highest prices named since er corner, and this compelled baker ctive step and this was accomplishe ugh a 20 per cent, advance in In New York many bakers adhered to ations for bread but cut about one weight of each five cent loaf. Wit ersons out of employment in all 1 ry, but particularly in the eastern e ty of raising bread prices came a

May wheat crossed \$1.67 a bushel in considerably higher that \$1.72 here. form and oats were up, partly in symp owing to export demand

The enormous export buying power exhi roughout the week was the prima meat's advance. Italy was credited ht more than 2,000,000 bushels whi es for other foreign countries were ly in the week offerings were light re holding for higher prices.

ment which restrained the country amounts. At times there was stro buying by western millers and expor es and this condition in the face of lis small stocks made the advance easy ere were several setbacks late in th which an eight cent break followed by ery, caused the majority of broker ling margin accounts to increase th at least 50 cents a bushel.

ere were also instances of commission sing to accept any more grain orders. One of the factors contributing to the ri he rather widespread belief that uld exist. Statistics were quickly tr ver, to dispute such claims. stigations by New York State and government got under way to see it

speculation backing the advance.

rities of Illinois were also on the ale

ws provided dire punishment for pri

conspiracy of agreement be pr Washington, February 6 .- During the ry 30th, 6,290,000 pounds of copper France: 4,777,000 pounds to England ds to Italy, and 1,457,000 pounds to S

### THE HIDE MARKET

New York, February 6 .- There was an w developments in the market for co des yesterday.

The inquiry from tanners was light, and ales were reported. The market retained owever, and previous quotations were here were no changes in wet or dry se e city packer market was quiet but firm

aracas entral America ador ... .... i ... ... ... ...... era Cruz ampico ... Dry Salted Selected: ayta ..... aracaibo ..... ıbuco .... 

era Cruz .. .... 17 % avana 18

Ity slaughtered apreads 18

Native steers, selected 60 or over 10. beanded obto, bull Olto, bull 161/2

ountry slaughter, steers, 60 or over. 20 

281