

INDUSTRIAL CONDITIONS OF BELGIUM AS THEY APPEAR TODAY

Raw Material Wanted From America in Order to Keep Factories in Operation.



Anti-return German demonstration, Antwerp, June 13. General Drabbel and General Cabra shown on balcony.

BY GEORGE M. VINTON OF PORTLAND.

WHEN starting our voyage from New York we were astonished at the great demand for passage for this country. Upon investigation, we found that while we carried a passenger list of 1340 steerage or third-class, that these people were made up largely of people who were returning to their native country to live at ease the rest of their days on the money they had made in America. Of course the greater portion of steerage consisted of the laboring class—the very class we need in America to do manual labor. The percentage returning to America runs about 50 per cent of the number coming to Europe. This means that about 20 per cent of each steerage passenger list is going to Europe to stay. This information was obtained by consulting regular passenger lists of the same steamship line.

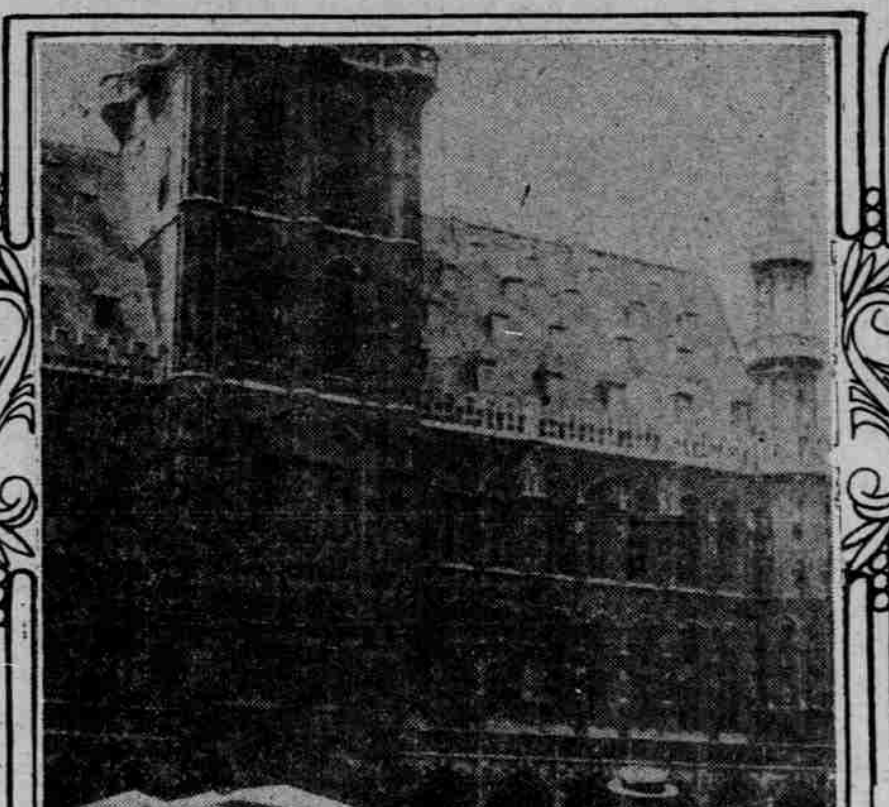
Writing from a purely neutral standpoint regarding prohibition, I took the occasion to ask some of these people returning whether they held it against America because of their being deprived of beer and light wines. Whether the expression of a few individuals serves as a criterion or not, is a question. Here is what one Belgian told me in broken English when asked his opinion of "dry America": "In Belgium you will see scarcely anyone intoxicated. We drink light wines and beer. In America we munch our dry bread with water; in Belgium, we eat bread with wine, and you will see fewer drunken people in Belgium in a month than you will see in America in a day." And, do you know, since coming to Belgium I have almost been actually forced to believe him.

Luxury is Seen.

From the very time we walked down the gangplank of the steamer Lapland and stepped on Belgian soil we have nothing but an atmosphere of prosperity. The many columns of printed matter printed during the war, picturing "poor, suffering Belgians," goes glimmering when you see the luxury that surrounds them here.

Mr. Van Rosensdal, who accompanies me, has been a great source of obtaining information from his many friends here in securing some information for this article. Many things are happening on the exchange each day that are never made public.

There is no scarcity of labor here. The greatest trouble is to get people to work. Belgium has a population of about 6,000,000 people at this time, of which 150,000 men are still in service. If this man power were released into constructive work it would of course make a big difference in the output of manufacture. About two-



Town hall of Brussels, constructed as early in the seventh century. Note flower market in foreground.

thirds of the labor here consists of women.

In this country there is a compulsory military service. All men arriving at the age of 20 years are forced to serve their time, which varies according to the different branches of the service they enter. For instance, 17 months of service are required of each man serving in the artillery or cavalry. As for the infantry it requires only 12 months. During the occupancy of Belgium by the Germans all men who had attained the age of 20 and who are now 25 or 26 are being called back to serve their time in the Belgian army. Men who are married are allowed to enter the infantry only. In case these men have one child to support they only serve six months; those with two children only serve four months. After the classes from 15 to 19 have been called, which will only take a year, the labor situation will be relieved, owing to a number of these men being discharged from military service.

White Bread Unknown.

The laboring classes here do not know what having means. Much money is being spent by them, and while white bread is not seen here, we find this class spending money for pastry and luxuries that should be spent for staples. There are so many holidays here that the least excuse is given by the laboring class for not working. Their salaries are so high that few of them work but three days in the week and then only eight hours. The manufacturer is therefore discouraged at production and until the demand slackens will not be able to dictate when his help shall or shall not work.

As I have already stated, there is no white bread in Belgium. I have asked some of the better families why white bread was not to be had and have been informed that the reason for this was that "we need the white flour for pastry." Since the war some people in Europe have simply lost their heads to reason.

When strolling along the wharves at Antwerp we have seen two Portland boats, Western Plains and West Tascok, unloading flour. There is a big demand for flour here, but until the rate of exchange is improved there will not be any heavy buying.

Banks are doing a good business. The head of a large bank here informs me that before the war they had deposits of 12,000,000 francs. Since the war this same bank has deposits of 200,000,000 francs. So far as foreign business is concerned there is little activity in buying and selling, due to the exchange.



Anti-return German parade, Antwerp, June 13. Banner, translated, reads, "Widows and orphans of the war."

men, child, animal and even the fire that burns is throwing out moisture into the air, which is immediately turned into a cloud of frozen vapor that floats away and remains visibly suspended in the air. Very slowly this settles to earth; and in the morning, about the steps and any protecting place, one can see a very fine film of flour-like dust deposited, which is composed of frozen vapor.

Noses Freeze Quickly.

Exposed ears, hands and noses freeze at this temperature in going the distance of about one city square. The breath roars like a mild jet of steam, while a dipper of boiling water thrown out into the air emits a peculiar whistling as its drops circle through the frosty atmosphere.

Prospectors, in attempting to boil a dish of rice or beans upon a camp fire unprotected from the weather, find that the side of the dish that is in the fire will boil, while the part of the dish exposed to the weather has frozen. To remedy this, the dish is set completely into the fire. Edged tools subjected to this temperature become as hard and brittle as glass and will break readily under strain. All vegetables, potatoes, apples, fruit, eggs and the like can be allowed to freeze until they become like bullets. To make ready for use, place them in cold water half a day before using, and the frost will slowly withdraw without injury to the food.

To attempt to thaw them out by more rapid process by fire or hot water spoils them for use.

Some remarkable tales are told of thawing out a frozen foot, ear or hand by immersing the member in cold oil for some time—often several hours.

This, it appears, is an absolutely

safe remedy, and one thus escapes the surgeon's knife, as no bad results night watchman, who found the unfortunate man in the snow (45 degrees below zero) and both hands frozen to the wrists. He was taken into the office and treated as above for about five hours, when all the frost was drawn out without so much as losing a finger tip. The physicians were amazed as they thought amputation would have to be employed in this case. His hands were as white as snow, and when placed in the oil they snapped and cracked as the oil began to act upon the ice crystals.

In such temperatures one must be very careful about touching things with unprotected hands. It is dangerous to take hold of a door knob when it is 60 degrees below zero or thereabouts with the uncovered hand, unless one is careful instantly to release his hold, for if he does show this carelessness the inner palm of his hand will be frozen in five seconds. The result is the same as though he had touched a red-hot stove.

Spikes Cause Explosion.

Great spikes, used in constructing the frames of buildings, when subjected to this frigid temperature contract where embedded in the wood, and when the clinging fiber of the wood can no longer control the contraction, the shrinking spikes give a great jump in the wood, this being accompanied by a loud booming sound like the firing of a heavy gun, or that of a building struck with a sledge hammer. As there happens to be more than one spike in the structure there is, therefore, not one but many of these explosions, which resemble the sounds from a target range.

Coal oil begins to thicken at 40 degrees below, and at 60 and 70 degrees below becomes as thick as lard and looks very much like that substance, only a little darker. It can then be cut out of the can with a knife in the same way that one cuts lard or butter. A lighted lamp or lantern left exposed in this temperature will freeze up and go out in about 30 minutes.

STEEL BREAKS LIKE GLASS IN YUKON'S WINTER WEATHER

Many Strange Manifestations Appear When Temperature Drops to Around Sixty Degrees Below Zero.

BY EDWIN TARRISSE.

LOOK out, or you will drop that "chisel!" Before the sentence was finished the tool had slipped from the hand of my assistant and, striking upon some bar iron, flew into pieces as if it had been glass instead of steel.

This reads like a bit out of "Alice in Wonderland," but is sober fact, as told by an American formerly engaged in various enterprises at Dawson, in the Yukon territory.

It is interesting to learn what happens at 60 degrees below zero, a temperature not uncommon in the Yukon. For example, the man mentioned tells of one stretch of such cold in January, a spell that endured two weeks. The temperature ranged from 41 degrees below zero (the steamiest) down to 68 degrees below. Some of the outlying Yukon police stations reported 80 degrees below. These cold waves alternate with warmer periods of 10 degrees below.

Fire Roars and Crackles.

At such temperatures as these strange manifestations appear. One the way a fire burns in the stove, it roars and crackles like a great forge, and wood in the stove seems to dissolve in the flames like a chunk of ice; the wood is gone and one wonders where the heat went.

At 60 degrees below every stove-pipe throws out a great white cloud of smoke and vapor, resembling a steamboat in its whiteness, and this cloud streams away for from 50 to 100 feet, mingling with the other white-gray mist or haze that remains permanently in the atmosphere of the town like a great fog when it is 40 degrees or more below zero. This white-gray fog is not fog as we know

it, but is frozen fog, and every man, woman, child, animal and even the fire that burns is throwing out moisture into the air, which is immediately turned into a cloud of frozen vapor that floats away and remains visibly suspended in the air. Very slowly this settles to earth; and in the morning, about the steps and any protecting place, one can see a very fine film of flour-like dust deposited, which is composed of frozen vapor.

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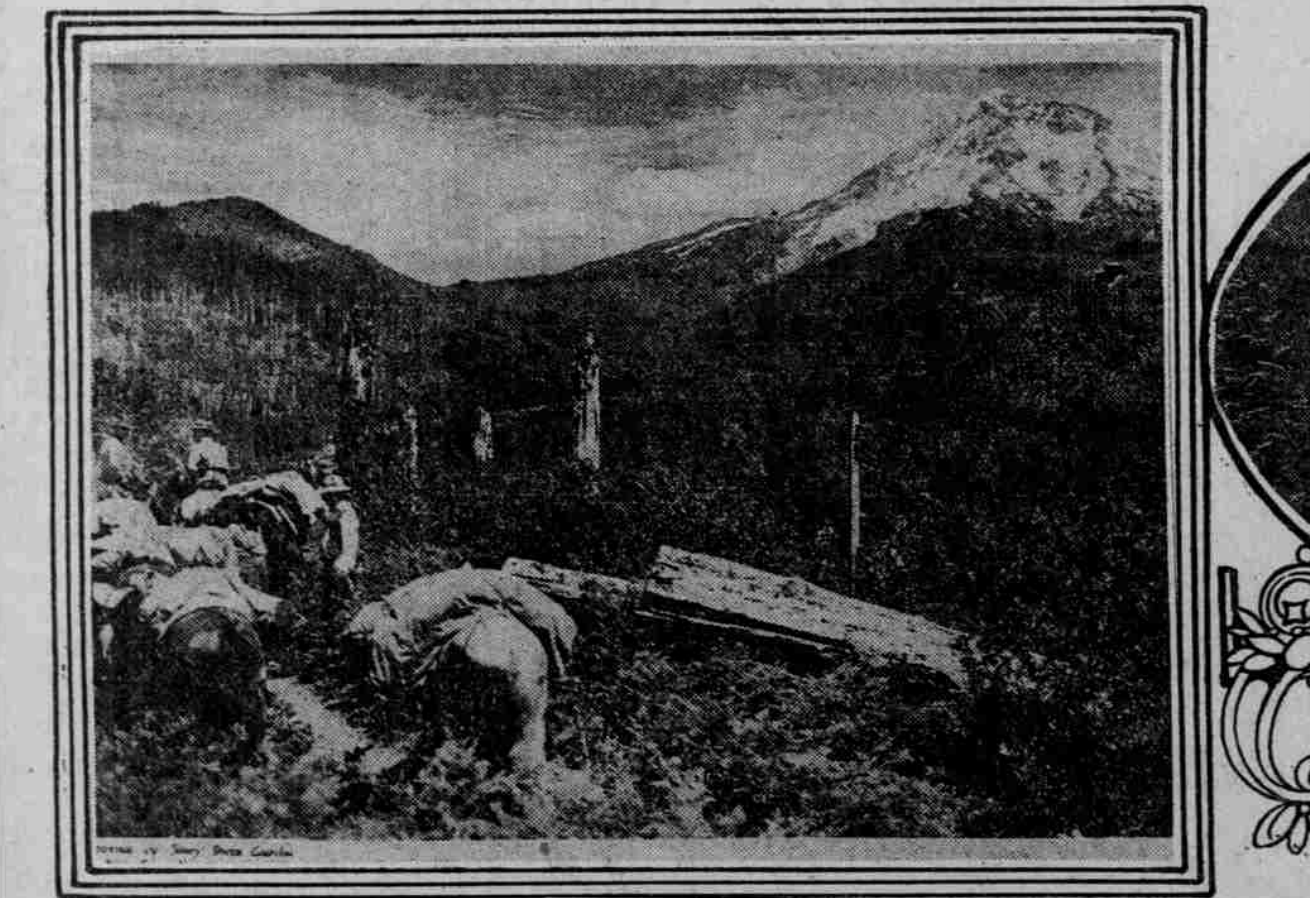
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BULL RUN LAKE PRESENTS AN UNUSUALLY INTERESTING STUDY

Water Comes From Natural Drainage of Immense Watershed, Approximately Five Miles in Area.



Sandy River canyon from Sugar Loaf Mountain on trail to Bull Run Lake.

BY JAMES D. OLSON.

NESTLING in a valley, protected by heavily timbered ridges of the Cascade mountains, lies Bull Run lake, the source of Portland's water supply. The lake is situated about 60 miles east of Portland, in the very heart of the Bull Run forest reserve.

Perhaps no body of water in the state of Oregon, with Crater lake

alone excepted, presents the interesting study that accompanies Bull Run lake. Thousands of people for years past, and even in the present, believe that the waters of Bull Run lake and river are furnished from glaciers, creeping down the slopes of Mount Hood.

Geologists agree with engineers of the Portland water bureau that this theory cannot be correct. These men point out that the summit of the Cascades stands between Mount Hood

and the Bull Run lake. The headwaters of the lake, and on a branch of the west fork of the Hood River, have their origin from glaciers on Mount Hood, which are situated side by side.

The ridge lying to the east of Bull Run lake is 4900 feet in elevation and the valley of Hood river which is on the east slope, is 1400 feet lower. The Bull Run lake has an elevation of 3189 feet. Hence, it is argued that it would be a physical



Bull Run Lake and Watershed from Hiya Mountain.

possibility for the waters from Mount Hood glaciers and melting snow to flow out of the lake. The water which supplies the lake comes from the natural drainage of the Bull Run watershed, which is approximately five miles in area.

The discharge of the lake as shown by the weirs proves conclusively that snowfall and rainfall within the watershed supplies all water which flows out of the lake.

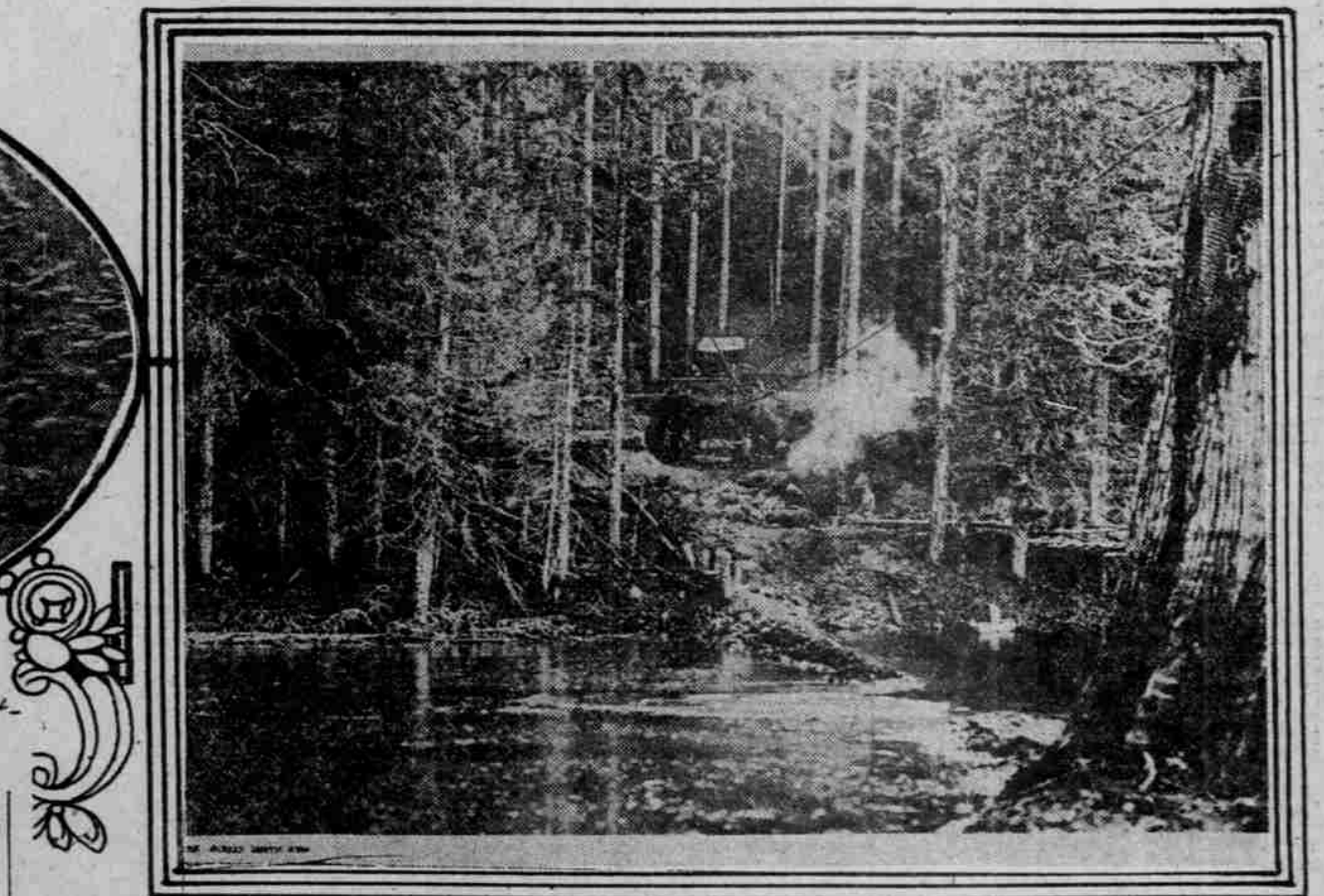
The lake, according to Ira A. Williams of the state bureau of mines, was formed by a terminal moraine, along with dykes of new lava in such a manner that the entire mass formed a barrier across an ancient valley, damming the valley in such a way as to form the lake.

The lake is 4000 feet wide and 8000 feet long. At its deepest point it is 125 feet deep. Bull Run lake is con-

sidered to be one of the prettiest bodies of water in the state. While its color of blue is not so pronounced or as strange as is the water of Crater lake, nevertheless it has a color which differs from those of most lakes found in the mountains.

Surrounding three sides of the lake are high slopes, covered with timber. To stand at the present Bull Run camp and look across the lake to the west, one will see as beautiful a picture as nature ever created.

Except at flood time, which comes during the run-off in spring, Bull Run lake has no visible outlet, but seeps through a mass of broken rock and disappears only to reappear about one mile below the lake in a series of springs. For years much mystery surrounded this subterranean voyage



Dike across North Arm of Lake, Part of General Plan to Impound it's Water.

of the waters of the lake, and it was disputed at times that the waters of Bull Run river actually came from the lake.

However, through the installation of dams, Chief Engineer Randlett and his assistant, Ben Morrow, have measured the flow and have determined without doubt that it is from Bull Run water that Portland secures its water supply.

The Bull Run watershed is timbered with fir, hemlock, cedar and

larch, virgin forest which has never been cut. The forest is so dense that precautions are taken to prevent the fire from entering the watershed, for it is this timber that protects the city's water supply.

Many of the ridges of the watershed are thick with rhododendrons, and at the present time these beautiful flowers are a riot of color. The deer tooth lily is found in profusion within the reserve, following in the retreating footsteps of the snow.

One of the strange features of a visit to Bull Run is the heavy lack of either game or bird life. City Commissioner Mann, in charge of the water bureau, believes that the lack of food caused by the late snow, and the lack of people within the reserve, is responsible for this condition. But at all events, one can travel for miles within the reserve without hearing the note of a bird, or catching a glimpse of animals of any sort.