

Saving Ontario's Natural Resources

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HOW ROCKS ARE FORMED

In this space I have talked of the plants and animals, told my readers something of the natural laws that bind them and of their relations with one another. But there is another factor, the strata on which all creatures live. Geologists tell us that the earth is a ball of rock, which judging from its weight, size, and motion, is molten in the interior at a depth of about 50 miles. Outside this hot and fluid core are the rocks as we know them, in layers much like the skin of an onion. It is believed that the deepest down are the oldest and those at the surface the youngest.

Unfortunately this holds true of only an ideal section and elsewhere twisting and folding have displaced the rocks so that the oldest is often on the surface. Earthquakes, volcanic action, lowering of the land surfaces and raising of the sea bottoms have contributed to this displacement. So it is often a puzzle to find out the different ages of the rocks at the surface. However, the science of geology has discovered certain features of all rocks and formulated them into rules that when followed will identify any formation.

Different Types

So much for the way we know the rocks. Now let us look at the way they are formed. Some rocks are volcanic, laid down as molten lavas, which were formed by pressure in the interior of the earth. Such rocks are never stratified but are just masses of stone. Other rocks have been deposited as silt, sand, or clay in water, usually in layers. Still other rocks were formed by corals or other animals. These are usually in layers, or strata, and both are usually known as sandstones or limestones. Often after they were laid down they were buried deeply and subjected to pressure, twisting the strata and changing their form. These pressure-changed rocks are known as metamorphic rocks. Marble, slate, and quartz are example of metamorphic rocks.

FARM FORUM

(A Department conducted by Professor Henry G. Bell of the Ontario Agricultural College, Guelph, assisted by various other members of the faculty.)

QUESTIONS AND ANSWERS

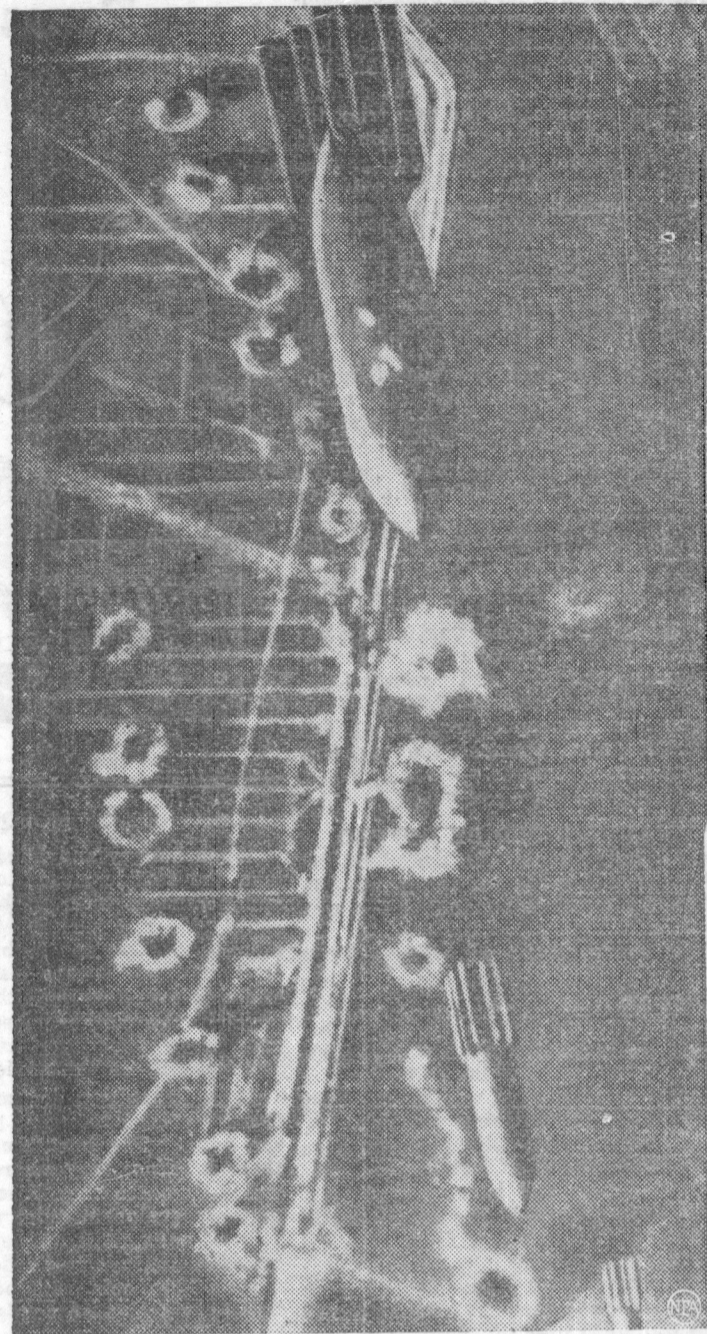
Q. I have a field of sand land which I want to build up for potatoes and I have no barnyard manure. I sowed it to rye last fall and intend to let it get around 14 inches high this summer, then plow it down, disk it in, let come up again and plow down, and so on. Then next spring I intend to sow the potatoes. This land is pretty well run out and will you please advise if I am right? Perhaps you can advise me of something better. Some advise plowing it down when ripe. "A. S.—Norfolk Co."

A. I believe you are proceeding along the right line to build up the organic matter of the soil. This is of preliminary importance. One thing I would advise you against is plowing under of the land so that it lies bare all winter. Be sure to seed to rye or wheat so that the field may be well covered and protected from the washing effects of winter rains.

Q. I have used several times mushroom compost as a fertilizer for gardens. My ground is very light, and in fact, quite sandy. I am told that this compost has little value as a fertilizer, and am inclined to agree with the statement. Would you kindly advise? "H. F. B.—York Co."

A. You are correct in your conclusion that the exhausted mushroom compost does not supply much plantfood. This compost originally, no doubt, contained considerable fresh horse manure which carried to the ton about 12 lbs. Nitrogen, 5½ lbs. Phosphoric Acid and 15 lbs. Potash. With the growth of the mushroom crop and the continuous watering of the compost heap, no doubt there was a very large exhaustion of both Nitrogen and Potash. I would say about ¾ of the former and at least ½ of the latter. The heating up of the compost was caused by bacterial action which liberated much of the Nitrogen in the form of Ammonia. I cannot see that this material could be of much value

Death Stalks the Highway: Nazi Planes Over Russia



Nazi-censored caption on this radiophoto from Berlin says it shows how the Luftwaffe smashes at Russian supply lines. German planes have just released sticks of bombs along an unidentified Russian road. Some of the missiles can be seen in mid-air—others are exploding on the ground.

THE WAR WEEK—Commentary on Current Events

"VICTORY MAY STILL BE FAR OFF" - CHURCHILL

Accepting Canada's golden "Torch of Victory" in a brief ceremony at his London, England, home last week, Prime Minister Winston Churchill said of the war now raging on three continents: "The end may be far off. We cannot tell. It depends on the enemy. How long that wicked man will torture and afflict nations, how often or in what direction he will set his murder machine in motion we cannot tell. One thing we are assured. He and his villainous crew will be delivered to the doom and shame which is their due, and we ourselves shall have the honor of having had something to do with it."

BOUND UP WITH RUSSIA

The British press and public fully appreciated that a British victory was strongly dependent upon the success of the Soviet Union in beating the Nazi blitzkrieg, and conversely that a quick German win against Russia would weigh heavily against Britain. London's immediate policy last week appeared to be threefold: to assist Russia by maximum day and night air attacks on Western Germany; to make every effort to improve Britain's strategic position abroad while Germany was preoccupied elsewhere; to increase the home effort to pile up reserves of armament.

LONG-TERM CHANCES GOOD

British military experts were agreed that Russia's long-term chances for success were good, even though severe defeats were experienced initially. The German supply problem, they argued, should become progressively more

as a fertilizer. In so far as material carries organic matter, it may be valuable to a light soil in providing a soil with water-holding capacity.

difficult and dangerous over the great distances involved. It was said in London last week in authoritative circles that Russia would not be in serious danger until and unless Moscow were taken and the German armies reached the Don and the Volga rivers. Even then, guerilla warfare would be a grave menace to the Nazi invaders and actual occupation of the Soviets would exhaust their forces.

Upon the fate of the main Russian armies hinged the course the conflict would take within the next few months. Strategic withdrawals, leaving a path of destruction behind, could assure the safety of great masses of the Red army, which, if retired to strong positions deep in Russia, might organize a large-scale counter-offensive and bring Germany's chosen war of movement to an end.

WILL SURPRISE WORLD

While many people on this continent last week took the gloomy view that a decision had already been reached in the Russo-German war, public men in-the-know spoke the opposite opinion. Major General F. S. Beaumont-Nesbitt, military attaché at the British Embassy at Washington, said it was quite possible the Germans would overrun vast sections of Russia in initial penetrations, but that to knock out the Red army "would be one hell of a job." He believed it was quite possible for the Germans to capture large areas of western and southern Russia and still leave the Soviet Union more or less intact as a political enemy. A great deal might depend upon the unity of the Russian people and their trust in their leaders.

Joseph E. Davies, United States ambassador to Russia from 1936 to 1938, who is now special assis-

tant to the Secretary of State, commented: "It is my opinion that the world will be surprised at the extent to which Russia will resist."

ITALIANS WARNED

On the other side of the fence, the Italian people were warned by Mussolini's mouthpiece, Virginio Gaydo, that they must not expect a lightning victory over Russia. "It would be a serious mistake to think that all is easy and ought to speed in quick-step to the desired solution," Gaydo wrote. "Russia is resisting the offensive not only with a gigantic mass of arms, and the more or less capable arts of her leaders, but also with distance. That was the case in 1812 (when Napoleon failed to conquer Russia). It was the case—if in a less measure—from 1914 to 1917. It is still, in part, her chance today."

In Washington it was admitted that the Russians had put up the strongest resistance the Germans had yet met. But the Administration was not expected to give the Soviets much substantial aid until it became clear whether or not the Russians were going to survive the blitz. For the time being, technical experts only would be sent to the Soviet Union.

"SHOULD STRIKE NOW"

The President himself voiced once again a hope that the United States could keep out of the war, while declining to say that he believed that America could remain at peace. One of Mr. Roosevelt's chief lieutenants, Secretary of the Navy Frank Knox, had the previous evening made a flat declaration that "The time to use our navy to clear the Atlantic of the German menace is at hand. Now is the time to strike, while Hitler is busy crushing Russia."

PROBLEMS FOR CANADA

Russian entry into the war against Germany brought fresh problems to Canadian authorities, especially since the Soviet Union has never been recognized by the Dominion Government. The interment here of many sympathizers with the cause of Communism creates an embarrassing situation, too, since Russia is now virtually an ally of Great Britain.

Last week while making a tour of the West, Prime Minister Mackenzie King promised a two-ocean navy for Canada, pledged that the condition of the masses would be improved in the post-war order. . . . But the most important move made by the Government at Ottawa was to call up 378,000 Canadian youths from 21 to 25 years of age for military training, those found medically fit to remain in service for the duration of the war.

VOICE OF THE PRESS

THOSE EXPERTS!

Where are those experts who knew Germany could not finance a real war?

—Quebec Chronicle-Telegraph

HESS: NEW VERSION

Last words on Hess: "Never was so much concealed from so many by so few."

—New Statesman and Nation

AUTO OWNERS

The people of the United States and Canada would own approximately eighty per cent of all the automobiles in the world—if they were paid for.

—Kingston Whig-Standard.

SHORTS FOR MEN

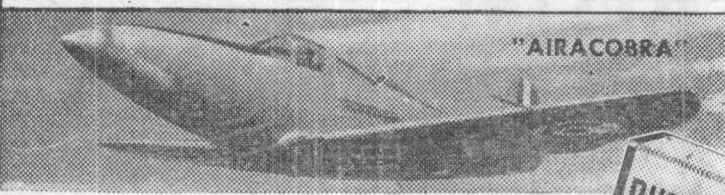
Every year, about this time, we suggest reform of men's clothing. We look at the girls and see how cool they are dressed and how cool they look and then find ourselves enveloped in many clothes, all of them stiff and hot. We make our annual suggestion that men go in for shorts for business summer wear—knowing of no one brave enough to follow the suggestion.

—Niagara Falls Review.

It Requires Water To Produce Milk

A cow's production is limited by the water she drinks, and if she must drink from dirty ponds or go a long distance in Summer or drink ice water in Winter, or gets all she needs for the day at one time, the amount she drinks

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will be inadequate to supply her bodily needs and to run her milk factory at full capacity. She will supply her bodily needs first and use what is left for milk. Plenty of clean, pure water available at all times is essential to economic milk production.

Helpful Hints For Dieters

Serve Meals Minus Rich Gravies; Cut Out One Hour of Sleep

So you're dieting? Keep it secret! Give up the temptation to chat about it to your bridge club and—especially if you wish to keep him—to your beau. Even your closest friend loses interest after one heart-to-heart talk, writes Alice Wade Robinson, beauty editor. Nobody outside your immediate family really cares. Delightful as it is to exchange recipes on foods you eat, it's a bore to hear you tell of the foods you refuse. If you diet, keep it quiet.

But between us two, possibly you may like an arm up on your reducing pilgrimage. If so, here are suggestions to make the going pleasanter:

A. Serve foods minus their rich gravies or cream sauces. Place latter in special dishes so that non-dieters may help themselves to as much as they like.

B. Cut out one hour of sleep. Put in that time at corrective exercises.

C. Chew food to a creamy pulp before swallowing. That will give you every particle of nourishment. And as a result, less energy will be needed for digestion, less food will be required for nourishment, less food will satisfy the appetite.

D. If your diet contains foods you disliked as a child and still dislike, tell your doctor about it. He may omit them from your list.

I. Keep with cheerful friends when dieting. Go to amusing entertainments. That helps you avoid the martyr's role, enables you to see that dieting is a constructive aid to better health and spirits.

Two Languages Held Necessary

English and French Should Be Taught in All Canadian Schools, Official Says

Inability of the French and English populaces of Canada to speak in each other's language "is a reflection on our intelligence," Alderman Estelle B. Cuffe, of St. Catharines, said at a recent council meeting, advocating that both English and French be taught in Canadian schools.

Alderman Cuffe represented St. Catharines at the sessions of the Canadian Public Health Association in Quebec City.

"IT'S COMMON SENSE"

Alderman Cuffe, a former school teacher, said that during the sessions she sat around a table with French-Canadians unable to speak any English and she was unable to speak French. "It is a reflection on our intelligence," she said, "that neighboring Canadians would meet and not be able to converse."

"It is common sense that our children should be taught two languages."

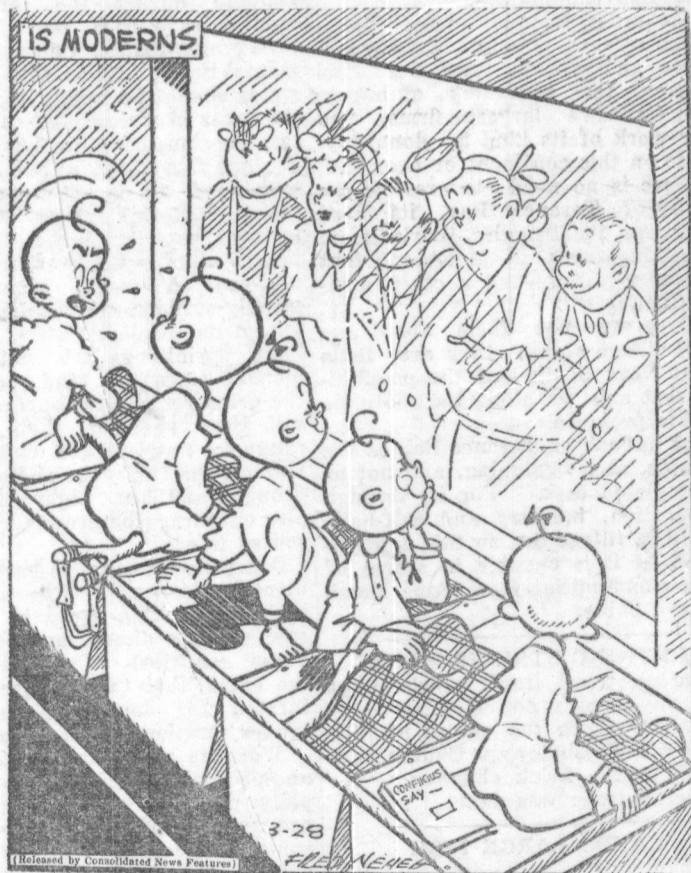
Britain's Crops Hit Forty-year Record

Britain has been making hay under war clouds and the 1941 crop may be the largest in 40 years. Besides hay the grain yield is expected to be satisfactory, and fodder crops are described as "extremely good."

Greenland's Icy Mountains

The ice-coated center of Greenland was supposed to be a lofty plateau, until sounding experiments indicated that the loftiness is mainly ice, and the land hollows down at center to a bowl no more than 2,000 feet above sea level.

LIFE'S LIKE THAT By Fred Neher



"I wish they'd go . . . I'm tired o' sittin' here grinning at them!!!"

REG'LAR FELLERS—Comforts of Home

By GENE BYRNES

