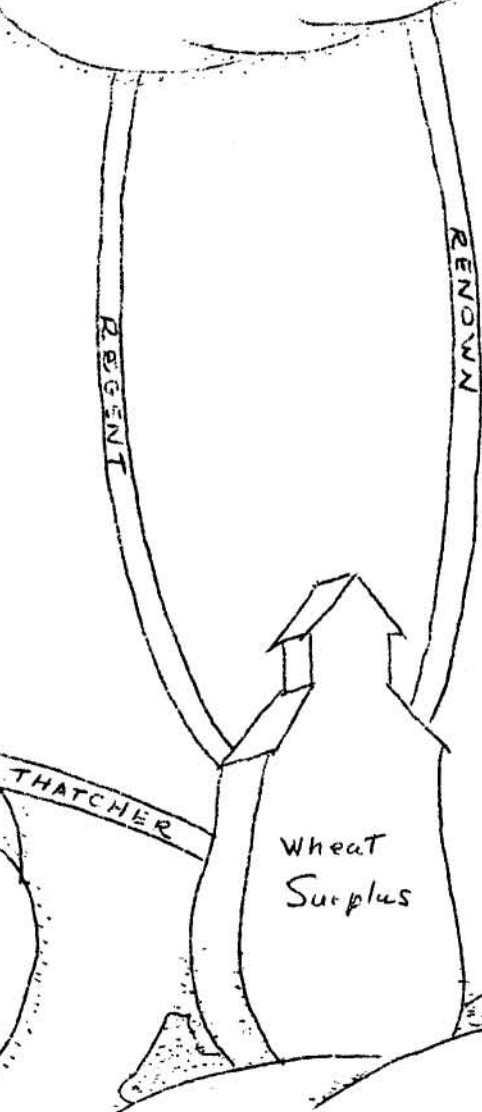
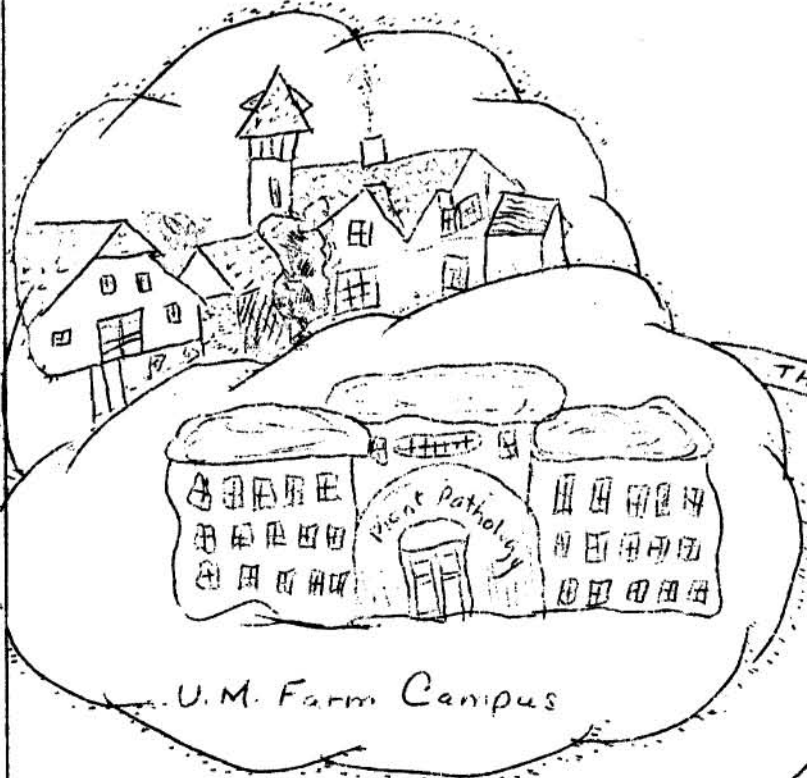
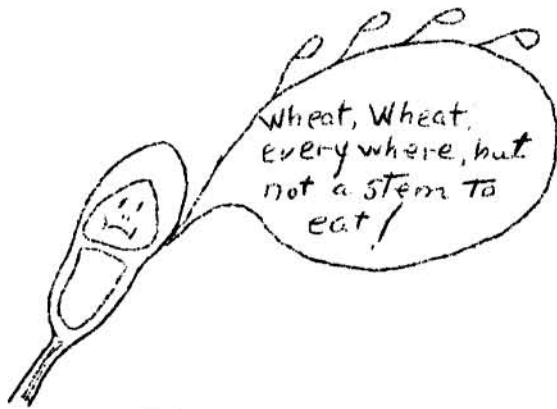


Aurora Sporealis

(var. Borealis)



Science's contribution
to the wheat surplus.

A U R O R A S P O R E A L I S

Vol. XVI, No. 5

Sept.-Oct., 1940

Dear Aurora:

Those of us who in former years drank at the foaming fount and later became members of the Rust Research Laboratory at Winnipeg, send you greetings and a few contributions. Until a count is made, one scarcely realizes just how many Old Timers can be included in such a category. Some, of course, are more ancient than others. Some, too, remained longer than others at the fount, but none seem to have reached a state of satiation - all would gladly return for more.

A few of these Old Timers are no longer with us, but only officially is their separation recognized. Dr. Bailey, who was formerly in charge of the Laboratory, left us for Toronto University. Mr. Conners was needed at the Central Laboratory in Ottawa. Dr. Neatby, who came to the fount at regular intervals to quaff of its stimulating flow, went to the University of Alberta, but recently returned to Winnipeg to a broader field of activity. Dr. Bisby, a member by adoption, has taken up his abode in England. Dr. Hanna is temporarily absent on military duty (Canadian Air Force) in Britain. We regret that among our contributions we cannot include a personal contribution from each of these absentees.

We have the word of Julius Caesar that Gaul was divided into three parts, and that each part differed from the others in language, customs and laws. Like Gaul, the present membership of the Laboratory can be divided into three groups, but unlike the Gauls, the three groups speak the same language, observe the same customs, and obey the same laws. The differences lie only in their life histories. We have those who have never drunk directly from the foaming fount, but who have gone to other springs to assuage their thirst: Gordon, Machack, Hagborg, Brown, Johnston, and Wallace - all in plant pathology. The second group comprises those who for longer or shorter periods came to the fount at regular intervals - the plant-breeding group: Goulden, Peterson, Welsh, Waddell, and Robertson. And, thirdly, we have those who drank at the fount regularly and to capacity so long as opportunity lasted - more plant pathologists: Newton, Greaney, Johnson, Craigie, Peturson, Cherewick. All wish to pay their respects to the foaming fount.

We are fortunate in the happy relations which have always existed between ourselves and the denizens of the Tottering Tower wherein gushes forth the foaming fount. On several occasions the presiding spirit of the fount has paid us a goodwill visit. From time to time others have come to renew friendships. As opportunity offered, we have re-visited the fount. We are pleased to make a special offering to Aurora at this time. It is true that we have a war of the first magnitude on our hands just now, but, except for the temporary, though much-felt loss of Dr. Hanna, the even tenor of our ways has not been very noticeably disturbed. Our Southern border is wide open, and we extend a cordial invitation to all who inhabit the Tower and drink at the fount to come and see us.

J. H. C.

THE RUST LAB NEWS FEEL

The 1940 Edition

Dr. Margaret NEWTON, having in past years explored Central Europe, Spain, Russia and Mexico, has recently turned her attention to one of the few remaining unexplored regions -- this time nearer home. Late in August she visited Aklavik at the mouth of the Mackenzie on the borders of the Arctic ocean. The north-bound trip was by aeroplane, the south-bound by boat. But she speaks for herself in another part of this issue.

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Prof. A. H. R. BULLER has, since his return from his summer visit across the line, divided his time between his old office at the University of Manitoba, the Rust Lab., and the fungous flora of Manitoba and Western Ontario. He expects to be present at the American Association Meetings in Philadelphia, where he is to give an invitation paper on the subject of the flexuous hyphae of P. graminis and other rust fungi. During this trip he hopes to visit Washington, Princeton and Boston.

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It may be of interest to denizens of the Tottering Tower to learn that Big Game Hunter BLAIR has returned safely to Winnipeg. But the margin of safety was small. In the wilds of northern Minnesota he and his companions were attacked by a deer (at least that is what we heard). Don't get too worried. They escaped unharmed, though their car and the deer did not. Blair says he will, in the future, avoid this method of hunting on account of the expense. There are some things we can't understand about this episode. If the deer attacked them and did not escape, what happened to the venison? Some have suggested that the deer was pink. If so, what sort of entertainment did Blair and his companion receive from those of the Tottering Tower?

-o-

Dr. BISBY, formerly of the University of Manitoba and now of the Imperial Mycological Institute, Kew, writes frequently to various Old Timers in Winnipeg. Thus far, he says, the war has not interfered greatly with his work or comfort. Some windows at the Mycological Institute have been broken, and also at the Kew Herbarium, but no serious damage has been done.

Language difficulties are still more or less serious. To quote: "I am perpetually astonished to find that English (my English) is spoken almost nowhere in England, Scotland, Wales, or Ireland. Now in America I understood everything that was said in Iowa, New York, Canada, California, Texas; but here I have some difficulty in Kew, more in Hackney, much more in Wiltshire, and in Cornwall I speak a foreign language. (And to think that a young lady from Budapest, learning English in Paris, told me I spoke beautiful English - much easier to understand than what the English spoke!)"

We trust that he will experience no difficulties greater than the linguistic ones.

-o-

Dr. Yun-Chang WANG writes occasionally from China to his friends at the Rust Lab. where he worked on a scholarship from the China Foundation from November, 1938, to September, 1939. Previously he had worked for a year and a half with Professors Gregoire and Martens at the University of Louvain in Belgium, chiefly on the cytology of several rusts including some of the cereal rusts. On his return to China (via French Indo-China) he was at first stationed in the province of Kwangsi, but was presently obliged (by the China Incident) to move further west to the province of Kweichow where, as he says "the weather is never fine for three days, where one cannot go three li without running into a mountain, and where nobody has three pennies". Life, it seems, has not been without incident since he arrived home. Within twelve hours he had to run from the first Japanese bomb, and, as he says, "how I ran". The native Chinese ran too, but, to his amazement, rarely discussed the war while doing so. Life is not all "beer and skittles" at the University of Chekiang, but somehow or other the tough and philosophical Chinese manage to carry on.

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News of Dr. W. F. Hanna

Many of Dr. W. F. HANNA'S friends among the Old Timers will know that he joined the Royal Canadian Air Force at the outbreak of the War. Perhaps it would be better to say that he re-joined it, for he saw active service in the Royal Air Force in the last war. During the years of post-graduate work that followed the War, his connection with the R.A.F. lapsed but was again resumed some time after his appointment (in 1928) to the Staff of the Dominion Rust Research Laboratory. For several years past he has been a member of the Winnipeg Flying Club and has served for the past four years as an officer of the Reserve of the R.C.A.F. When War broke out a little over a year ago he was immediately called up with the rank of Flight-Lieutenant and sent to Trenton, Ont., for a course of training in the operation of the latest types of aeroplanes. In April of the present year he was promoted to the rank of Squadron Leader of the 112th Army Cooperation Squadron which was shortly afterwards sent to England under his command. Since then some of his friends in Winnipeg have heard from him occasionally but (perhaps naturally enough) he has said but little concerning his military duties.

The most recent news of him is contained in a news dispatch printed in the Winnipeg newspapers on September 30.

"Somewhere in Southern England, Sept. 30 - Air-Marshal W. A. Bishop V.C., today unfurled the new Royal Canadian Air Force flag which flew for the first time in England when he visited a Canadian Army Co-operation Squadron in this beautiful rolling country. Air-Marshal Bishop flew here - the first time in the air for the former war ace since he reached Britain last week - with Squadron Leader Bert Evans, of Winnipeg. Air-Marshal Bishop was received by the commanding officer, Squadron Leader W. F. Hanna, of Winnipeg. On the inspection he was accompanied by Hanna and Air Commodore G. R. Walsh, senior officer of R.C.A.F. headquarters in Britain."

All of the Old Timers who knew Dr. Hanna and many who know him only by reputation will wish him the best of luck in the gallant and hazardous work in which he is now engaged.

THE 1940 C. S. T. A. MEETINGS

The two outstanding events of this year's Canadian Phytopathological life took place in June, and in both the Tottering Tower had its part. The fount still foams and shows no sign of running dry; the spout still squirts nor loses its cover.

The first of these events was academic--the annual meeting of the Canadian Phytopathological Society. The second was social--the Old Timer's get-together in honor of E. C. Stakman, all-time high batter and present water-boy of the Plant Path. kitten-ball team, and Mrs. Stakman, Permanent Hostess and Benefactress of all Old Timers and present holder of the long-distance swimming record for the Red River.

Of the academic event one need say only that it was a roaring success. Old Timer Stakman prestidigitated and thumped the rostrum while the rafters rang with his eloquence which duly impressed his audience with the versatility of plant pathogenic organisms. Prof. Buller followed with an illustrated and illuminating address on the movement of protoplasm and nuclei in the fungi. He also thumped the rostrum. Lesser lights, who dared not thump the rostrum, did the best they could.

Later, at the banquet of the Canadian Society of Technical Agriculturists, about 300 of them were treated to a demonstration of Old Timer Stakman's pinch-hitting abilities. Having, perhaps, heard of his batting average, they persuaded him to pinch-hit for their chief after-banquet speaker. This he did with all the gusto for which he is noted. The oration, after touching on such diverse matters as the alleged deficiencies of his housekeeper and the proper management of mules, closed with a stirring appeal for more vigorous control measures against the various hazards that agriculture is faced with.

The social event was equally successful. Most of the Canadian Old Timers within a thousand miles of Winnipeg were there. The event took the form of a dinner at Moore's restaurant. To the number of 40 or more the Old Timers and their wives and friends bustled in at the sound of the dinner gong. The menu which is given below was suitable to the occasion and the gathering.

MENU

Nidularia hetero-ovula

Stemonitis et Lycogala

Fistulina hepatica ignea
et *Amanita muscaria*

Tuber hibernica et
Petroselinum hortense

Clavaria Cheddarensis

Peziza pomaria cum
Lactaria frigidaria

Coffea brasiliensis soluta

Highlights of the Get-together:

During dinner between courses 1 and 2--Discussion between Drs. Stakman and Machacek on the relative merits of Limburger, Gorgonzola, Roquefort, Stilton, Danish Blue and Minnesota Green cheese. During course 3--Long-distance argument between Drs. Stakman and Broadfoot about the use of interference in football.

Speech by Dr. Stakman

Parody by Dr. Stakman of Mrs. Stakman making a speech. (After a promising beginning the parody fell flat because E.C.S. forgot it was a parody.)

Reminiscences of the Tottering Tower by Dr. Craigie.

Speech and limericks by Prof. A. H. R. Buller.

Thereafter came the Deluge--for speech descended on all and sundry, including Messrs. Loegering and Watson who thumped the table till the glasses bounced. The writer has no recollection of how and when the meeting broke up, but it must have ended sometime.

CLASSIFICATION OF MINNESOTA STRAINS OF HOMO SAPIENS VAR. MANITOBENSIS

The following list and brief descriptions will serve to identify the Minnesota strains of Homo sapiens var. Manitobensis. Considerations of space permit reference to but two or three important characteristics of each strain that have been observed by several Minnesota and Manitoba investigators.

The system of classification used in the present investigation constitutes an endeavour to approximate the "natural system" in several important respects. In the first place, what could be more simple and natural than to arrange these peculiar strains into three large groups, namely: Major, Minor, and Symbiotic.

The strains of the Major group are those which were allowed to Major in Plant Pathology at the University of Minnesota. The Minor group consists of those strains that were incapable of fulfilling the high intellectual requirements of the Major group but displayed certain specialized abilities, and were therefore allowed to Minor in Plant Pathology at the University of Minnesota. The third group, the Symbiotic group, includes strains that appeared in Manitoba from various sources and completed part of their phytopathological life history in close association with the Minnesota strains of H. sapiens var. Manitobensis at the Dominion Rust Research Laboratory, Winnipeg, Manitoba.

For convenience the strains of the Major and Minor groups are listed in the order in which they appeared in the Department of Plant Pathology, University of Minnesota, where they were at once identified, characterized, psycho-analyzed, enslaved and brutalized, and finally educationalized, classified, and degreed according to their ability to devour the history, methods, and principles of plant pathology.

In one of the aphorisms of his "Philosophia Botanica", Linneus stated that "Ignorant persons impose absurd names". To avoid any such conclusion being reached concerning the present investigators, it was decided to employ numbers instead of

names. These numbers are used in such a manner (we hope), as to preserve the identity of the various Minnesota strains of H. sapiens var. Manitobensis. The present work, therefore, provides further evidence that taxonomic and nomenclatorial incompetence go hand in hand. Unfortunately, the vague, trivial, and unreliable characters of many of the strains herein described make it almost impossible to advance our knowledge and understanding of them. It is only hoped that the reader will be able to recognize the various strains, and follow a conservative course in the estimation of their worth as biological entities or nonentities.

General Key and Description of Minnesota Strains

A. Major Strains

Strain I. (Syn.-Margaret Newton) First Canadian strain to appear in Minnesota where it was reported about 1920. Localized in Univ. of Saskatchewan, 1922-25. Then, in 1925, appeared suddenly at the Rust Research Laboratory where its scientific contributions, particularly concerning physiologic specialization and genetics of the rust fungi, have increased from year to year. Disappears in certain years from Manitoba to reappear elsewhere. In 1930, Strain I suddenly appeared at Cambridge, England, at Berlin, Germany, and at Moscow, U. S. S. R. Vienna, Holland, and England reported its presence in 1935, and later it appeared in Spain and Mexico. On its reappearance in Manitoba the scientific virulence of this strain is always appreciably increased.

Strain II. (Syn.-I. L. Connors) Reported by Stakman and Freeman to have appeared in Minnesota in 1921. When subjected to study, they found it difficult to classify. So facultative as to be practically omnivorous. Saprophytic on books and printer's ink; parasitic on rusts, smuts, hymenomycetes and almost all other fungi. A prevailing strain in Manitoba from 1923 to 1928. Disappeared from Manitoba in 1929 and was later found to have become a prominent strain at the Central Laboratory, Ottawa.

Strain III. (Syn.-D. L. Bailey) Sometimes called the "mighty atom". Degreed in 1925. Characterized by its ability to think quickly and clearly. Is capable of expressing itself brilliantly, eloquently, and sometimes at considerable length. It successfully attacks an approaching opponent with sharp, rapier-like thrusts of the tongue. Was appointed, in 1925, Officer-in-Charge of the newly established Dominion Rust Research Laboratory. Disappeared from Manitoba in 1928 to continue its constructive work as Professor of Plant Pathology, University of Toronto. Now a well-established Ontario strain.

Strain IV. (Syn.-J. G. Craigie) First appeared in Minnesota in 1923, where it was at once identified, classified and placed among the Uredinales to which it has been attached ever since. Disappeared from Minnesota in 1925 but was found in that year at Winnipeg, Manitoba. In 1928, Strain IV was recognized as the most prominent strain in Canada and was appointed Officer-in-Charge of the Dominion Rust Research Laboratory. Disappeared in 1930 to reappear for one year at Cambridge, England. This strain is noted for its classification of the sexes of P. graminis and other rusts into plusses and minuses. Through its activities, pycniospores and flexuous hyphae found their proper place in the scheme of things.

Strain V. (Syn.-W. F. Hanna) One of the most virulent strains in Manitoba. First appeared in Minnesota in 1924. Described by Stakman et al as an exacting and thorough researcher. In 1927 and 1928, Strain V developed mycological affinities of a high degree under conditions provided by Prof. A. H. R. Buller. First

appeared at the Rust Research Laboratory in 1928 where it was classified as Senior Plant Pathologist in charge of smut investigations. Until Sept. 3, 1939, it was a well-known Manitoba strain. At this time it took up aerial activities with the Royal Canadian Air Force. Now an air-borne strain "Somewhere in England".

Strain VI (Syn. - T. Johnson) First appeared in Minnesota in 1924 in close association with Berberis vulgaris. After a brief and unhappy liaison with H. gramineum, it found its natural place among the Uredinales. Disappeared from Minnesota in 1925 and has since appeared in Manitoba in frequent association with Strain I. Habitat: pycnial nectar.

Strain VII. (Syn. - E. J. Greaney) Distantly originated from Ireland. Its Irish ancestry, closely associated with the potato, has bequeathed to this Strain a predilection for the parts of plants that rarely emerge from the dirt; hence its close association with the foot and root rot of cereals. Appeared in Minnesota in 1926, where it resisted all efforts to elevate it above the level of the top-soil. In 1935, it appeared for one year at Rothamsted, England, where it showed a similar inclination. Now, a soil-borne Manitoba strain.

Strain VIII. (Syn. - B. Peterson) This strain came to the attention of Stakman, Christensen et al in 1928. For several years past, since its re-emergence in Manitoba, it has been parasitic on crown rust which it attacks with a vigour and persistence which it is horrible to contemplate.

Strain IX. (Syn. - W. J. Cherewick) The most recent Minnesota strain of Homo sapiens var Manitobensis. First appeared in Minnesota in 1938, but soon spread further north. At present is virulently attacking alfalfa root disease. This strain is highly facultative, being saprophytic on printer's ink in many languages.

B. Minor Strains

Strain X. (Syn. - C. H. Goulden) Minnesota, 1924. Wrongly classified by Minnesota investigators. Undoubtedly of Major importance. Appeared in Manitoba in 1925 as Cereal Specialist in charge of plant breeding investigations. Many-sided -- Geneticist, Mathematician, Photographer, and Statistician Extraordinary.

Strain XI. (Syn. - K. W. Neatby) Minnesota, 1929. Characterized by certain prominent morphological characters. Length 6'6", width 1'8". Vocal chords highly developed. Closely associated with Strain X from 1926 to 1935. Disappeared from Winnipeg in 1935 but reappeared in 1940 and was then classified as Agricultural Director of the North-West Line Elevators Association, Winnipeg, Manitoba.

Strain XII. (Syn. - J. N. Welsh) Minnesota, 1926. Swarthy strain of Hibernian ancestry. Very prolific. Gave rise, by crossing, to Vanguard oats and numerous nameless offspring.

Strain XIII. (Syn. - Rudolph F. Peterson) Minnesota, 1930. Important Minor strain closely associated with Strain X. Classified as Senior Assistant Agricultural Scientist. By hybridization assisted in the production of Renown and Regent wheats, and two bouncing boys. Strong, deep, silent type of H. sapiens var Manitobensis.

Strain XIV. (Syn. - W. H. Waddell) Minnesota, 1926. Identified and classified by Hayes et al. Antagonistic to all Major (Plant Pathological) strains. Attacks durum wheat breeding problem with determination and vigour. General contour tympaniform.

Strain XV. (Syn- Everett Robertson) Minnesota, 1938. Recently collected by Hayes and Stakman for further study. A most promising Minor strain. Associated with Strain XII. Decidedly mutualistic, not superficial.

C. Symbiotic Strains

Strain XVI. (Syn.- Real Old Timer G. R. Bisby) Minnesota, 1918. More or less adopted by the Dominion Rust Research Laboratory from 1925 to 1935. Distinctly mycologically inclined. Congenial, musical, and married. Now a well-established strain at the Imperial Mycological Institute, Kew, Surrey, England. So far, has escaped the cultural and civilizing effects of German bombs.

Strain XVII. (Syn.- Dr. W. A. R. Dillon Weston) Originally isolated and cultured at Cambridge University, England. Appeared in Manitoba in 1932 and for one year was closely associated with Manitoba rust strains. Artistic tendencies highly developed. Now playing its part in the Battle of Britain by camouflaging air fields and buildings so they cannot be easily identified and classified by the German authorities.

Strain XVIII. (Syn.- Mabel R. Brown) Isolated by Prof. E. T. Brooks, Cambridge, England. Appeared at Winnipeg in 1934. Classified as a physiologic specialization researcher. Reappeared at Cambridge University in 1935.

Strain XIX. Dr. Yun-Chang Wang, Institute of Botany, National Academy of Peiping, China, is classified as Strain XIX. Appeared in Belgium and France in 1937 and 1938, and in Winnipeg in 1938. Very closely associated with the problem of determining the rust resistance of Chinese wheat varieties. Disappeared from Canada in 1939 and was reported in 1940 to be established "Somewhere in China".

Strain XX. (Syn.- T. D. Blair) Originally isolated in New Zealand, but was found at Rothamsted Experimental Station, England in 1939. Transferred its root-rot research activities to Winnipeg in 1940. Decidedly antagonistic to all Australian strains, but closely related to strains originating in England. Typically dark, handsome, and decidedly Regular.

TRAVEL COLYUM

Margaret Newton has favoured Aurora with a brief account of her recent trip to the Arctic. The word "down" in the title is not a misprint. Up north they say "down north".

Down North to the Arctic

The lure of the Arctic! In August those words first began to have some meaning for me. I left Edmonton for Aklavik on the Mackenzie River Delta, 120 miles north of the Arctic Circle, in an unpretentious plane with seven fellow passengers, all miners and trappers. Hardly had the plane left the water (I was still feeling distinctly nervous for this was my first flight) when a trapper beside me said, "I'm d- glad to feel safe again. I come out of the north every five years and I am scared to death in the cities with cars rushing at me from every direction. Here I feel safe." I said nothing! As the day wore on the fields became fewer in

number, and at each small hamlet we could hear the mournful howl of the husky dogs. Huskies! At last I was on the fringe of the great northern hinterland.

At Fort McMurray on the Athabasca River, visibility became poor owing to smoke from forest fires and the plane remained for the night. Many planes were grounded here. As the plane approached the water, I noted the river banks were oily and dark, and was told that here were found the world's largest deposits of bituminous or tar sands, and that these tar sands again overlie vast salt beds.

The following night we reached Fort Simpson in the North West Territories. Our speeding plane had long since passed the last farmstead, had called at many forts, great mining centres such as Goldfields on Lake Athabasca and Yellowknife on Great Slave Lake where people talked only in terms of gold and even our waitress at the Wild Cat Cafe took nuggets from a shelf for us to admire! There were no hotels at Simpson, just some half dozen houses and a number of Indian tents. These Indians are still largely nomadic, coming into the settlements in summer and departing in the fall in search of game. The Hudson Bay trader spread mattresses on his floor and on these the men passengers slept: the minister's wife made a bed in her living room for me. Such is the hospitality of the north!

The third day the plane reached the small settlement of Aklavik where all but the surface soil remains perpetually frozen, and food placed in the cellar, even in mid-summer, freezes solid. No need here for frigidaires! Everywhere along the route was evidence of natural wealth, oil gushing from the wells at Norman and Oil Wells near Great Bear Lake, copper on the Coppermine River, and radium at Great Bear Lake. On the upper stretches of the Mackenzie River the forests were replaced by smaller trees of spruce and willow but, to my surprise, the latter were not so stunted as those about Fort Churchill on the Hudson Bay, over 650 miles farther south. The climate of the Mackenzie Valley is tempered by soft Chinook winds, and innumerable plants, such as roses, fire-weed, and wild barley, thrive right to the Delta. I found P. graminis on Hordeum jubatum as far north as Great Slave Lake. As the plane approached the landing at Aklavik, scores of young Eskimos in gay parkas swarmed around, grinning amicably. They, with their parents, had just arrived from the extreme northern islands of Banks, Victoria, and King William with their year's catch of furs, the wealthier in schooners, the poorer in skin boats, the women rowing the heavily laden boats, and the men sitting alone in empty kyaks! Then followed the barter of their furs for goods in the Hudson Bay store, and, as each family had furs to the value of from one to five thousand dollars, the purchases were many and varied and included not only the staple commodities - bacon, tea, and dry goods - but also many things not usually associated with Eskimos, such as cameras, musical instruments, satin-covered counterpanes, and even evening clothes! The goods were high in price on account of transportation costs, gasoline costing \$1.50 per gallon, and coal \$100.00 per ton. I saw one very dejected Eskimo at Aklavik who kept asking passersby if they had seen the Mounted Police. I was told he was a prisoner, that he had been intoxicated and, there being no prison in Aklavik, had been condemned to follow the Mountie for a month. It was nearly dinner time and he was eagerly looking for his guard!

At Aklavik I said farewell to the plane. It left for the Yukon with a trapper, his dogs, and their year's supplies, and I, for Edmonton in a Hudson Bay stern wheeler. As I stood at night in the crisp air at Aklavik and peered into space,

"And the Northern Lights in the crystal night came forth
with mystic gleam
And soft they rolled like a tide upshoaled, with a cease-
less ebb and flow.
They rippled green with a wondrous sheen, they fluttered
out like a fan;
They spread with a blaze of rose-pink rays never yet seen
of man."

Those who have seen the Northern Lights in more southerly latitudes can have no conception of their grandeur beyond the Arctic Circle. I stood spell-bound, and began to know why men go back to the Arctic!

The return journey of approximately 2,200 miles up the Mackenzie River, through adjoining lakes and rivers, took practically three weeks. As the rivers are full of shifting sand bars only boats of very shallow draft are used. Our boat pushed five barges laden with furs ahead of it and with its barges formed on the horizon a curious flotilla! Each day the boat stopped for two hours to take on firewood for the engines, and almost with the same regularity it was stuck from one to four hours on a sandbar! At Lake Athabasca the flotilla had to put into the harbour for two days on account of the fury of the gales and the danger of losing one or more of the barges. All too soon the journey ended but long before that I began to realize as never before that the map of Canada is being rolled back and, with the advance of knowledge and technical research, Canada is slowly gaining mastery of her defiant strongholds of the north -- even that territory of silent mystic charm, the land beyond the Arctic Circle!

Margaret Newton

RUMINATIONS AND RASPIRATIONS

It was with a mixture of amazement and incredulity that the Winnipeg Old Timers learned that that once doughty wielder of the Kitten-Ball bat, the Big Chief himself, had been promoted to water-boy. To say that they were completely flabbergasted is putting it too mildly. O Tempora, O Mores - O quam cito transit gloria mundi -- How are the mighty fallen.

One Old Timer, with tears in his eyes, commented as follows:

That the Chief, of mighty muscle,
Once the foremost in the tussle
Now should merely hlep them guzzle,
Is the saddest blow of all.

Another of a literary inclination ransacked his well-stored memory for suitable comments by the Great. Here are some of them:

Farewell, a long farewell to all my greatness. - Shakespeare.

The beauty of Israel is slain upon thy high places; how are the mighty fallen. - The Bible.

An' a goatskin waterbag was all the field equipment he could find. - Kipling.

If you had drank only water all your life, your limbs would have performed their functions with lubricity. - Le Sage.

All honest tiplers, all honest gouty men, all such as are a-dry, coming to this little barrel of mine, need not drink thereof, if it please them not; but if they have a mind to it let them drink frankly, freely and boldly without paying anything, and welcome; for how much soever you shall draw forth at the faucet, so much shall I turn in at the bung. - Rabelais

Mr. B. Peturson was very anxious that Dr. Newton should gain any information she could on the growth of sunflowers in the Far North. The reason is this: Some years ago he sent Sunflower seed to a friend in Iceland. The friend (he says) planted the seeds and all went well until midsummer when the plants came into flower. By that time the sun was above the horizon for twenty-four hours of the day. The effect on the sunflowers was peculiar. One day the farmer went out to take a look at them and found to his horror that every head was twisted off the stalk. The reason, of course, was obvious: The sunflowers, as is their nature, followed the sun around day after day until they had twisted their heads off.

Unfortunately Dr. Newton could find no sunflowers among the Eskimos.

Professor A. H. R. Buller has favoured Aurora with some of the ruminations of his lighter moments. Here they are:

Miss Juke at Kew

Verniculariae I saw,
That Cooke stuck down with gum;
I looked again and lo! they were
All Colletotrichum!

Coorinus comatus

I found a fungus snowy-white,
And laid it in the sink;
Next morn I looked and lo! it was
A filthy mass of ink!

Ye pro tem Editor approached the Old Timers at the Rust Lab. with a request that they put down on paper some outstanding recollections of their sojourn in the Tottering Tower. The experiment was a complete flop. For all the help they were, their heads might just as well have been coconuts. However, one O. T. with plenty of gray hair around (and in) his ears ventured the following:

--- The attempt to cure G. B. Sanford's hiccoughs is unforgettable. One day after we had partaken of our noon-day rations at the Greasey Spoon he suffered a violent attack of hiccoughs. After several attempted cures had failed, he told me he knew of an infallible one. To effect it, however, he required my cooperation. He would lie down on one of the laboratory benches while I sat, stood or leaned on his diaphragm. So he lay down while I pulled up a stool, stood on it, and leaned over with all my weight on his solar plexus, the hiccoughs gently rocking me up and down. All might have been well if E. C. S. had not entered the lab. with a visitor during the operation. I have not yet forgotten the look I got. Ever since, I feel I know what is meant by the expression "the evil eye".

--- PLANT PATH SEMINAR (about 1928) Scene V. -- E.C.S. - Gilbert did some excellent work on that. Embryo pathologist - Is that A. H. Gilbert? E. C. S. - No, his brother. Jimmy Seal - No, his cousin. E.C.S. - Brother. J.S. - Cousin. E.C.S. - brother. J.S. - I know he is his cousin. I played golf with him and he told me so. E.C.S. - He's his brother, but I suppose he had forgotten it.

TO A COPRINUS

On accidentally kicking one over in October, 1940.
(With very deep apologies to Robert Burns)

Wee modest flower of the dung
Whose virtues yet remain unsung --
Like all things living, old or young,
Or low or high,
Thou art from Nature's bosom sprung
To live and die.

In every alley, road or lane
Where Equine turds have lately lain
Thou rearest up thy shaggy mane --
A noble sight
To charm the scientific brain
With rare delight.

Let none condemn thy low degree
Or habits of coprophily;
For were it not for such as thee
The myriad dead
Would fill the earth from sea to sea
Still undecayed.

If Psalliota's lustrous fame
Or Amanita's evil name
Are equally beyond thy claim --
The fates have set
Apart for thee a higher aim
And nobler yet.

For thou hast yielded mysteries
To scientists from learned Fries
To Buller, Kniep and Vandendries,
Whose brains and wills
Sought laws of sex and spore release
Behind thy gills.

It has made dry and scarious
Professors joy-delirious
To find that sexes various
Existed in
Coprinus fimetarios
Instead of twin.

O fungus of the shaggy tress,
Of gills that slowly deliquesce --
When Man has sought eternal cesse
Thou wilt remain
To liquidate the gory mess
Left in his train.