Locomotive Megaphone Whistle Directs Sound Beam Down Track

No More Shrieking Whistles Will Be Heard in the Middle of the Night—Latest Device Condenses Sound to One Spot

Dallas, Tex.—Speeding locomotives in the quiet of the night—screeching whistles—interrupted sleep.

This soon may be a thing of the past as the result of successful tests with a new train whistle, built like a megaphone, which throws sound directly down the right of way, so no one close to the tracks can fail to hear it. But the sound is reduced on either side of the track. The device has been designed and built by employees of the Missouri, Kansas & Texas Railroad. Officials and mechanics have devoted several years perfecting it.

Work was started by C. T. McElvaney, for years superintendent of machinery on the Katy. His son, C. T. McElvaney, jr., now general roundhouse foreman at Dallas, continued experiments, and through his efforts the whistle has been perfected to a point where tests are hailed as successful.

McElvaney's whistle, which has been placed on two fast passenger train locomotives on the Katy line, has an amplifier and sound director which looks much like a headlight.

Warning notes are produced by six pipes, with low and high notes so blended that they produce a maximum warning with a minimum of annoyance.

Because of softer tones and the fact that sound will not be heard all over the countryside the whistle is expected to benefit not only train passengers but also thousands who live along the right of way, especially in large cities.

Churchill to Have Modern Apartments

Centralized Heating Plant Will Furnish Heat For Homes and Business Buildings

Winnipeg. — Development of the townsite of Churchill, Canada's newest seaport, on Hudson Bay, terminus of the Hudson Bay Railway, is expected to start next spring, according to information reaching Canadian National officers here.

The entire townsite at Churchill is owned by the Province of Manitoba and it is to be developed along modern town-planning lines. No property will be sold but, instead, there will be long term leases subject to reasonable revision at stated periods, such as every three or five years.

Engineers are now at Churchill working out plans for water works, water mains and sewerage lines. The town plan will specify locations of public buildings, schools, churches, railway station, hotels, business streets, residential section and recreation grounds. Adequate surveys will be made this year. A compact settlement is planned with the initial residential construction possibly in the form of apartment houses, heated by a central plant that would also furnish heat for business blocks and public buildings. Settlement will adhere to a carefully devised town planning scheme with proper safeguards made for future development and attention given to recreational facilities.

Many applications from those who wish to establish business houses of all descriptions at the new eaport are being received by the Manitoba Government. Three or four hotels and restaurants and a lumber yard will mark the initial construction at Churchill and work on these will probably start this month, when the survey will, it is expected, have been completed.

Parents Should Ignore Tantrums

U. S. Children's Bureau Gives Nine Essential Rules

Washington.—What the U.S. Children's Bureau considers the nine essential practices of a good parent are contained in a recent publication of that bureau entitled "Are you training your child to be happy?" They are:

1. Tell the truth to your children.
2. Keep your promises, good or bad.
3. Decide which things are most important for a child to do and then be consistent about seeing that he does them. Do not nag him about little things that do not matter much.
4. Do not say "no" one time and "yes" the next time for the same thing.
5. Break up bad habits by keeping the child so busy with interesting things to do that he forgets the old habit.
6. Pay no attention to him when he tries to get what he wants by temper tantrums or by whining.
7. Keep cool and quiet yourself. Speak in a quiet voice.
8. See that he gets things (if they are good for him) only when he is quiet and happy and polite.
9. Show the child you are pleased when he tries.

Screening Feeds Officially Graded

First Quality Now Designated As No. 1 Feed Screenings"

Canadian farmers will be particularly interested in the following statement issued by the Seed Branch of the Dominion Department of Agriculture:

Screenings shipped for feed from terminal grain elevators are now being sold under grade certificates, under the new grade standards and designations provided by the Canada Grain Act or regulations thereunder.

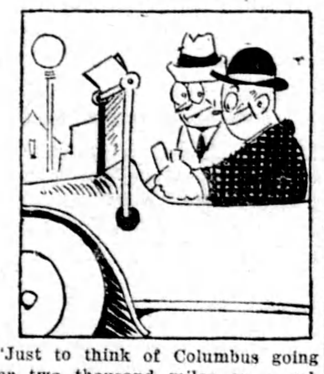
Standard Recleaned Screenings, consisting essentially of broken wheat and wild buckwheat, are now designated "No. 1 Feed Screenings."

A second quality of these screenings which, in addition to the wheat and wild buckwheat, may carry appreciabe quantities of wild oats and coarse grains, is designated "No. 2 Feed Screenings." This grade also allows a slightly greater tolerance of ball mustard than No. 1 grade and would be specially serviceable for feeding sheep.

The product formerly known as "Oat Scalpings" and consisting mainly of wild oats, but with small percentages of domestic oats and barley, is now designated "Mixed Feed Oats."

Terminal elevators, needed for the storage of wheat, are carrying substantial quantities of these grain by-products which are, in consequence, being offered at much lower than the usual prices. Mixtures of barley and wild oats, finely ground, are available at 89 cents per cwt., sacks included, delivered at Montreal, Sorel and Quebec.

Any danger from the presence of weed seeds in these nutritious grain by-products would be corrected reasonably well by fine grinding with high power hammer grinders, and this fact, together with the low prices at which they are now available should render them profitable to the Canadian feeder, even at the present low prices for animal products.—Issued by the Director of Publicity, Dom. Department of Agriculture, Ottawa, Ont.



"Just to think of Columbus going over two thousand miles on a galleon."

"Get out, man, Columbus didn't even have a car!"

The dialogue is between a small girl and the proprietor of a corner shop. "A large tin of salmon, please, and will you book it?" "I think there is some mistake. Your sister came for one a quarter of an hour ago. Surely your mother doesn't want two?" "Yes, it's all right. She sold the other one to go to the pictures."

We, the people, dont' want to get rid of our prejudices.

Find Under Westminster Abbey Portions of Original Edifice

London.—The remarkable discovery has been made of portions of a church about eight and a half centuries old beneath the floor of Westminster Abbey, and a problem which has puzzled many archaeologists may shortly be solved.

The find was totally unexpected and was made by workmen who were altering the arrangement of the heating apparatus.

A fine piece of eleventh century wall now stands revealed and it is hoped that it will be possible to follow up the clue and perhaps to discover the original dimensions of the Norman nave, a subject over which archaeologists have fought many a battle.

The present abbey building owes its origin to Henry III. It took the place of a church of totally different style with large round arches and heavy massive columns characteristic of the Norman builders.

The early church was opened in the year 1065, and was the gift of Edward the Confessor who was struck down with his last illness almost at the moment when his great church was being consecrated.

Daring Photographer

H. B. Crisler, Seattle photographer, who trekked across Olympic Peninsula, unaccompanied and unarmed, with no food or firearms, bolts a few juicy morsels of a marmot caught by his own ingenuity, on a mountain top.

Unpublished Longfellow Poem Given To Museum of Peaceful Arts

A four-line poem by Henry Wadsworth Longfellow, written when he was 16, and believed to be hitherto unpublished, has been brought to light as the result of the gift to the Museum of the Peaceful Arts, New York, of a seventeenth-century potter's wheel. The wheel, now on exhibition in connection with the museum's "Men and Machines" exhibit, is the gift of Ambrose Swasey, Cleveland machine tool and astronomical instrument manufacturer, and his nephew, Frederick D. Swasey of Portland, Me.

In a letter accompanying the wheel, the elder Mr. Swasey explains that the wheel originally belonged to Benjamin Dodge of Exeter, N.H., who started a pottery in Portland in 1801, which later passed into the hands of Frederick Swasey, whose father, the late Eben Swasey, bought the business of Mr. Dodge. Longfellow, he wrote, often visited the Dodge pottery and was interested in watching Mr. Dodge fashion clay into various forms, probably being inspired to write his poem "Keramos" while there.

Longfellow, he said, wrote the four lines, similar in theme to the "Keramos" of his maturer years, leaving the slip of paper on which it was written on the potter's wheel. Mr. Dodge found it and made a plaque, on which the poem was inscribed. For years it hung over the wheel, but finally it was sold by Eben Swasey and his partner, Rufus Lamson, who later tried to buy it back but could not discover the whereabouts of its purchaser.

The poem follows:

No handicraftsman's art
Can to or art compare;
We potters make our pots
Of what we potters are.

Non-Skid Rugs Will Prevent Stumbles

Non-skid rugs, to help save some of the thousands of falls which statistics show to occur annually from the slippery proclivities of the ordinary article, have been studied scientifically by the United States Bureau of Standards. Comparisons were made, a bulletin of the Bureau reports, between an ordinary untreated rug, a rug treated with a commercial preparation designed to make it less slippery on its underside, and a third rug backed underneath with a commercial material used as a rug underlay. The ordinary rug slid down a polished inclined plane, the Bureau reports, when the plane was tilted at an angle of only 18 degrees, not an unusual slope for an inclined walkway. The treated rug stayed on the polished plane representing the floor until the tilt was 32 degrees, a little more than one third of the angle between horizontal and vertical. The rug provided with the non-skid underlay clung still more tightly, not sliding off until the polished plane had been tilted to over 54 degrees, substantially steeper than a one hundred per cent. slope. Were this slope the side of the mountain it would be impossible for human beings to climb it except by using ropes, cutting steps, or otherwise employing the technique of professional mountain climbers. Determinations of the coefficient of friction between rug and floor also were made by the Bureau, confirming the easy skidding character of the ordinary rug and the effectiveness of the two-non-skid expedients.

Doris (expectantly): "You've seen Father? What did he say?" Tom: "Er—er—er I'm not certain whether he said, 'Take her, lad,' or 'Take care, lad!' "—Christian Science Monitor.

An Experiment in Spain

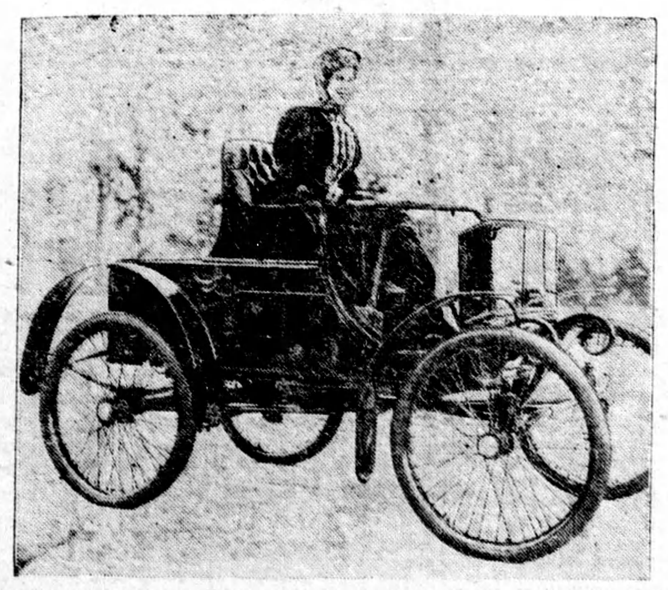
As an offset to the new State textbooks which are being introduced into Italy by the Fascists to make young Italians militantly nationalistic from their primer days, comes the news of an experiment in international education for children beginning its third year in Spain. There, in the Spanish International School at Madrid, under the Association for Plurilingual Education, children almost from the cradle to college attend six hours of classes and games daily in four languages—Spanish, English, French and German. Thus, presumably, they will think, speak, and act internationally from the age of 3.

Moreover, in the true international temper the school asks criticisms and suggestions from educators in all part of the world. Professor Pedro Salinas of the University of Seville is chairman of the executive committee.

"Then you think you won no permanent place in her heart?"

"I'm just a notch on her pet golf club, thats' all."

First Packard



Miss Molly Brown, seated in first Packard car built in 1899, will be driven from Detroit to Bethlehem, Pa., to be placed in Lehigh University on exhibition. In 1899 this car retailed at $1,250 and present trade-in value is 16 cents.

Chemical Is Invented to Halt Bad Cheques at Teller's Window

Indorsing a cheque that has been tampered with will be like signing a warrant for his own arrest to a person presenting such a cheque at a bank that uses a new protective system recently developed by Dr. Julian Block in Chicago. A concealed ultra-violet ray lamp is used in conjunction with a photo-electric cell and other little-known apparatus.

Detection of a raised cheque is instantaneous with this device, and the apprehension of the person presenting it can be brought about simultaneously, according to the inventor.

Explaining the system, Mr. Block said: "A bank needs only to have its cheques printed on paper treated with an infinitesimal amount of a certain chemical which does not affect the appearance of the paper in any way, and to install a small ultra-violet ray producing apparatus beneath the counter at its paying teller's window. The chemical employed may be applied in the ink used in cheque writing instead of in the paper, and is thus adaptable to protective cheque-writing machines, or it may be applied to both the ink and the paper.

"The moment a cheque made with paper or ink so prepared is offered at the teller's window equipped for this process, the invisible ultra?violet rays produce a fluorescence which makes the genuine figures shine out brilliantly, while any alterations in the figures or other writing, erasures or other signs of tampering show up as dark, non-luminous spots on a glowing field."

Important Addition To Astronomic Data

Results of Study by Dominion Observatory of Diffuse Gaseous Matter in Stellar System

The presence of very tenuous gases in the space between the stars, previously indicated and discussed by others, was definitely proved at the Dominion Astrophysical Observatory at Victoria, B.C. about seven years ago. It was then shown that stars of the highest temperature from 30,000 to 50,000 degrees Fahrenheit, of the greatest mass up to about 100 times that of the sun, and of an intrinsic brightness over a thousand times greater than the sun, were rushing about rapidly in all directions through diffuse gases which were nearly stationary in the stellar system. The gaseous matter which is believed to be of the same general composition as the earth, was recognized by the appearance of certain lines in the spectre of these hot stars and was shown to be widely extended throughout the system.

About four years ago Sir Arthur Eddington was led, by the proof at Victoria that the hot stars were in rapid motion through nearly stationary gases, to investigate theoretically the physical properties of this gaseous matter. He was able to show that it must be almost unbelievably tenuous, of thousands of times higher vacuum than an incandescent lamp. Indeed the whole volume of the earth would contain only about a quarter of a pound of such gases. He showed further that these gases behaved in an almost paradoxical way, that although external space was so cold that a solid body placed in it would fall to about 450 degrees below zero Fahrenheit, the molecules of these diffuse gases were so far apart, about one in every cubic centimetre, that the radiation from all the stars would give speeds to these molecules corresponding to a temperature of about 20,000 degrees. Eddington assumed these rare gases were uniformly distributed in the space between the stars but there was no proof of this uniform distribution nor knowledge of the motions.

While the early observations at Victoria furnished the foundation from which Eddington deduced the physical properties of this gaseous matter, the final observational completion of the whole structure has just been definitely proved that this diffuse gaseous mat-er is uniformly distributed throughout the stellar system. It has also been shown that this matter is not at rest as previously supposed but partakes in the most beautiful exact way in the orderly and majestic rotation of the stellar system around a very distant centre, the most convincing proof of the similar rotation of the stars having also been obtained at Victoria.

The demonstration that the space between the stars contains very diffuse gases, the theoretical determination of its density and temperature, and the final proof of its uniform distribution and its participation in the rotation o fthe galaxy, form a striking example of the effective combination of theory and practice. The development of this interesting advance in our knowledge of cosmos may justly be considered as one of the romances of astonomy and forms an important Canadian contribution to science.

"I can't see why they have a man to steer from the rear of the fire department's ladder truck," said Mrs. Tellum. "Well, it's a necessary thing, I suppose," replied Mrs. Backseat, "but I agree with you that it's not a man's work."

Soil Improvement Train in Quebec

10,000 Farmers Visit Train in Course of Tour—1,000 Soil Samples Tested

A soil improvement train has just completed its three weeks' itinerary through southeastern Quebec, having started at Coaticook on September 15th and finished at Vercheres on October 4th.

The train was organized by the Quebec Department of Agriculture in co-operation with the Agricultural Colleges in the province, the Seed Branch of the Dominion Department of Agriculture, and the C.N.R., and was part of a campaign now under way in Quebec for securing greater yields from a more intellient and more general use of agricultural line and commercial fertilizers.

Of the four coaches which made up the train, the first was used as a laboratory where samples of soil, brought in by visiting farmers, were tested for acidity, and recommendations given as to the approximate quantities of lime required according to the results of the acidity tests.

The second car was devoted to demonstrating the advantages from the proped use of agricultural lime; the third, those of commercial fertilizers, while the fourth was the lecture car in which lectures were given by the officials in charge on the use of agricultural lime and commercial fertilizers.

Upwards of 10,000 farmers visited the train in the course of its tour and about 5,000 soil samples were tested.—(Issued by the Director of Publicity, Dominion Department of Agriculture, Ottawa.)

Collecting Tree Seeds For Prairie Planting

As a result of the efforts of the boys and girls of Dauphin, Manitoba, there will probably be several million new trees sprouting on Canada's western prairies next year. Again this year, as in many years past, the school children are helping Mr. F. J. Smith, Supervisor of the Riding Mountain Forest to collect seeds from the Manitoba maple trees in the vicinity of Dauphin. After collection, the seeds are shipped to the Forest Nursery Station of the Department of the Interior at Indian Head, Saskatchewan, where they are planted in seed beds to germinate. The seeds may be planted either in the autumn or the following spring and the next spring following, when they have been in the seed bed eighteen or twelve months, as the case may be, the young seedlings are lifted and set out in the permanent plantation.

The seeds collected by the Dauphin children filled 139 sacks. This figure does not seem large, and even 3,058 pounds (a ton and a half) is a reasonable quntity to grasp, but when it is considered that a pound of Manitoba maple seed on an average contains 13,000 tree seeds, the number of seeds in this collection reaches the astounding total of 39,754,000. Of course, many of these will not germinate and of those that do, a proportion will die without having reached maturity. Nevertheless, it is a conservative estimate that as a result of the children's efforts over twenty million more maples will eventually help to beautify many farm homes in Manitoba, Saskatchewan, and Alberta.

Silk Tassels Popular

London.—Silk tassels in gay colors are the latest thing for modern furniture in place of handles. They are made to fit in with the color scheme of the room, and can be changed with the seasons and the curtains.

Free Glass Eyes, Made to Order, Are Given to Canadian Veterans

Toronto—With the exception of Germany, Canada had the only Government which has brought about the production of made-to-order eyes, and this work had grown up since the war, Dr. Clifford Taylor, director of artificial eye-work and optometry of the Federal Government, told members of the Progress Club recently.

Every ex-service man in the Dominion at the present time in need of glass eyes may procure them free of charge. Two replicas of each eye were made so that they could be easily replaced in case of accident.

Dr. Taylor told how at the end of the war Germany was the only country producing glass eyes, and service men in need of them had to send to a German firm in New York to be fitted. In case of breakage they had to take the trip to New York over again to obtain another eye.

"Seven out of ten persons need glasses," Dr. Taylor said; "three out of ten have them. The average citizen never stops to consider the possibility of blindness."