

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—screaming 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 except the train crew can 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. McElvany, Jr., general superintendent of machinery on the Rwy. His son, C. T. McElvany, 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.

McElvany'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 townsite on Hudson Bay, terminates on the Hudson Bay railway, is expected to start next spring, according to information reaching Canadian National officials 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 centrally 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 port 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.

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 Released 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 appreciable 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 especially 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 being offered at much lower than the usual prices. Mixtures of barley and wild oats, finely ground, are available at 85 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, and this 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 farmer, even at the present low prices for animal products.—Issued by the Director of Publicity, Dom. Department of Agriculture, Ottawa, Ont.

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 Castook on September 27th and finished at Vercheres on October 14th.

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 intelligent and more economical use of agricultural land and commercial fertilizers.

Of the four weeks 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 were given as to the approximate quantities of lime required according to the results of the acidity tests.

The second week was devoted to demonstrating the advantages from the proper 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 of 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.)

Unpublished Longfellow Poem Given To Museum of Peaceful Arts

The poem by Henry Wadsworth Longfellow, written when he was 17, and believed to be his first, has been brought to light as the result of the gift to the Museum of the Peaceful Arts, New York, of a seventeenth-century New York wheel. The wheel, now on exhibition in connection with the museum's "Men and Machines" exhibit, is the gift of Mrs. Swasey, Cleveland, machine tool and astronomical instrument manufacturer, and his nephew, Frederick D. Swasey, of Portland, Me.

In a letter accompanying the wheel, the older Mr. Swasey explains that the wheel originally belonged to Benjamin Dodge of Exeter, N.H., who started a factory in Portland in 1801, which later was sold into the hands of the younger Swasey, whose father, the late Mr. Swasey, bought the business of Mr. Dodge. Longfellow, he

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.

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

Sunday School Lesson

November 9. Lesson VI—Thomas (The Honest Doubter)—John 11: 14-16; 14: 5-8; 20: 24-29; 21: 1, 2. Golden Text—Thomas answered and said unto him, My Lord and my God.—John 20: 28.

ANALYSIS
I. THE LONELY PESSIMIST, 11: 14-16.
II. THE QUESTIONER, 14: 5-8.
III. THE DOUBTER, 20: 24-29; 21: 1, 2.

INTRODUCTION—There are several examples in the Old and New Testaments of men who passed through periods of doubt and questioning. The most familiar of these is Job, who, though a man, "Perfect and upright, one that feared God and eschewed evil," yet found himself bereaved, as it seemed by the hand of God whom he had faithfully served. His persistent and perplexed complaint and questioning is answered only by the unsatisfying dogmatism of his friends, until these break upon him with a vision of God in creation and providence making the world and governing it in His infinite power, wisdom and goodness, and by this vision his faith is restored and his sisters are reconciled. Similar doubts and questioning appear in the experiences of Frank in Jeremiah 12: 2-4; 35: 15-16; 29: 7-10. That the way of faith was always easy for the disciples of Jesus appears again and again in the gospel.

Thomas seems to have a peculiarly strong sense of the reality of faith, particularly hard. His story recalls to us Tennyson's answer to the statement that "doubt is devil-born" (The Manxman, xcv). He tells of one whom he knew:

"Who touch'd a jarring lyre at first,
But ev'ry stroke to make it true;
Perplex'd in faith, but pure in deeds,
And he adds:

"He fought his doubts and gather'd strength,
And... thus he came at length
To find a stronger faith his own."
So we may believe it with Thomas, of whom an early Christian story relates that he carried the gospel message to India, founding there a Christian church, which continues to this day.

I. THE LONELY PESSIMIST, 11: 14-16.
It was some time during the last months of Jesus' ministry, in the period of his disciples' visit to Jerusalem. He had received a messenger from Bethany telling him of the sickness of his beloved friend Lazarus. Knowing how bitter was the enemy of the evil ruler in Jerusalem against him (see 11: 47-48), his disciples sought to persuade him not to go. "Thou art well known to the Jews, and the Pharisees," they said, "and they will stone thee." Jesus, however, in the light of his own life, said, "I have said, 'I am the light of the world'; if I am stoned, I shall die, but I shall live." He said, for himself and them no stumbling.

The disciples doubted and hesitated. There may have been a disposition among them to refuse to go with him. It was Thomas who spoke the decisive word: "Let us also go that we may die with him." A pessimist, he knew of what lies before, but he was no coward.

There must have been much in the sayings of Jesus which these men who were so loyal to their teacher found difficult to understand. They could not easily put aside their expectation of a glorious Messianic Kingdom in which they would be a part. But Jesus was now speaking of going away from them and coming again. Where was that place to which he was going and where would he be? Jesus said, "Whither I go ye know, and the way that I go ye know, and the way that I go ye know." Thomas replied, "Lord, we know not whither thou goest, and how can we know the way?" Of the answer of Jesus to this question, Professor Manson writes, "Jesus answers that the way is himself. Thomas' last surely had been conscious, while he walked with Christ, of being led in a certain direction, nor can he have doubted that that was the direction to God. Can he not, therefore, now that Jesus is leaving his side, continue on the way that he has followed? He will lead to the goal? The Father is the Goal of Life, in whom our rest is won, and Christ is the true and living Way to his presence." Following Jesus in his footsteps, we are to live, obedient to his teaching, and find the way. Instructed by him, by his deeds as well as by his words we learn the truth in him, through faith, we see the power of his endless life, and from him we receive not only example and teaching, but life itself, the eternal life which both here and hereafter we live with God.

III. THE QUESTIONER, 20: 24-29; 21: 1, 2.
There is no doubt that to those who have yielded obedience to Jesus, and have put their trust in him, there does come the higher and more satisfying evidence of his living and abiding presence in the Spirit. "What became of his body we do not know. It may have been transformed into some spiritual essence which still bore the marks of his past. All that is mysterious about the life of his life with us who believe, and in us, we do not, and cannot doubt. Like Thomas we say, 'My Lord and my God!'"

Find Under Westminster Abbey Portions of Original Edifice

London.—The remarkable discovery has been made of portions of a church once built on the site of Westminster Abbey, and a half century old beneath the floor of Westminster Abbey, and a problem which has puzzled many archaeologists may shortly be solved.

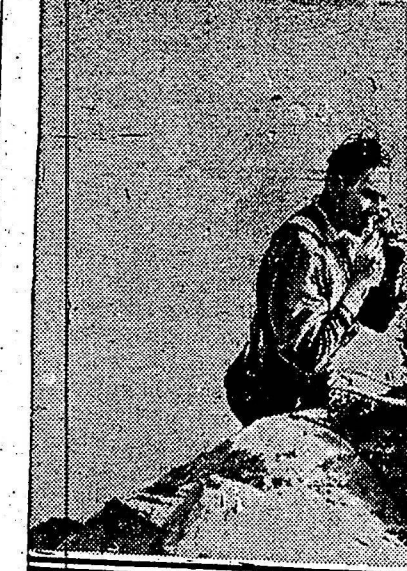
The find was totally unexpected and was made by workmen who were altering the arrangement of the heating apparatus.

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.

Home for Stray Cats In Chicago Building

Chicago.—A paradise of hamburger, cream and mice for homeless cats and their employment agency for good rats, has been maintained for eight years in the middle of Chicago's roaring high enough to make even a cat giggle.

In the window of a vacant store at Wacker Drive and Washington Street sits a contented row. They are the employees of the janitor of the building, who believes nothing is too good for his pets.

Board for the cats daily requires 75 cents of Fuller's salary and it goes by milk for the kittens and hamburger for the cats, with plenty of salmon on Sunday.

"When I die," said Happy, "I hope they bury me over the Northwest tracks. That's where I've buried the little cats that died these last eight years."

Happy believes he has raised a hundred cats during the years he has maintained his asylum for feline wayfarers. For some of them, chiefly the best fatters, he has found other homes where their talents may be of use.

"I've given the new opera building two fine ratters and I must have for their building. I stay up all night the kittens come, but I can't help much."

Happy makes his home in the building with the cats. He has trained them not to molest the things in his room.

"You can teach cats just like children," he contends. "All these cats know their names and they all ramble about the loop at night."

"Dick," called Happy.

"I'm a twenty-pound, eight-year-old, jumped to his shoulder.

"Teddie, Cockle, Nellie, Tommie, Midgee."

Obediently all the cats responded except Teddie, who was engrossed with an elaborate trapeze of rubber rings and balls.

"I don't know what all that kitten," Happy complained. "She won't mind worth a cent."

"I got to liking cats during the Spanish-American War," said Happy. "I was a cat with our outfit and it was my job to feed her. She used to go into battle as brave as any soldier. People can learn a lot from cats."

Happy is inclined to believe in reincarnation, contending that many cats have bigger and more generous souls than people.

Non-Skid Rugs Will Prevent Stumbles

The thousands of falls which statistics show to occur annually from the slippery proclivities of the ordinary carpet 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 designed to make it less slippery on its underside. The treated rug showed a 45-degree angle of slip, the untreated rug showed a 32-degree angle, and the rug with the non-skid 'underlay' rug showed a 13-degree angle.

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

Endorsing 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 ultraviolet 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 ultraviolet ray producing apparatus beneath the counter at its paying teller's window. The chemical employed may be applied to 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 ultraviolet ray produces a fluorescence which makes the genuine figures shine out brilliantly, while any alterations in the figures or other writing, or any 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 by 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 60,000 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 radiating 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 spectra 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 this 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 matter is uniformly distributed throughout the stellar system. It has also been shown that this matter is not as dense 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 of the 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 astronomy and forms an important Canadian contribution to science.

What New York Is Wearing

Illustrated Dressmaking Lesson From "Fashionable Dressing" by ANNABELLE WESTON, EDITOR



2668

The princess slip is made in one piece, woman's wardrobe, near with the new slim silhouette. It is made in one piece, woman's wardrobe, near with the new slim silhouette. It is made in one piece, woman's wardrobe, near with the new slim silhouette.

Its simple lines, the figure to well below the hips, here, contrast with so as to have a completely full, clinging hemline.

The broken line shows shoulder to hem goes away with application of lines to the outer garment, that feature, giving an otherwise perfectly charming appearance.

Its easily made! A few yards to join. The hem may be finished with piece-edge or binding.

Style No. 2668 may be made in sizes 16, 18 years, 36, 38, 40 and 42 inches bust. Size 36 requires 2 1/2 yards of 35-inch material with 2 yards of binding.

Very French in flesh colored crepe de chine with pale blue banding at neck, armholes and hem.

HOW TO ORDER PATTERNS
Write your name and address plainly, giving number and size of each pattern is you want. Enclose the stamp or coin (coin preferred), wrap it carefully for each number, and address your order to Wilson Patterns Service, 78 West Adelaide St., Toronto.

Wrong Shop

A big red-faced man pushed his way to the counter of a post-office and demanded a penny stamp.

The clerk on duty was doing his best to explain something or other to an old lady, but this the big man did not appreciate. He growl more impatient.

"I say, boy," he shouted, "I've a train to catch. Give me a stamp."

The "boy" looked at him for a moment, then turned afresh to the old lady.

"I'm sorry, madam," he resumed, "but you see—"

The big man interrupted him.

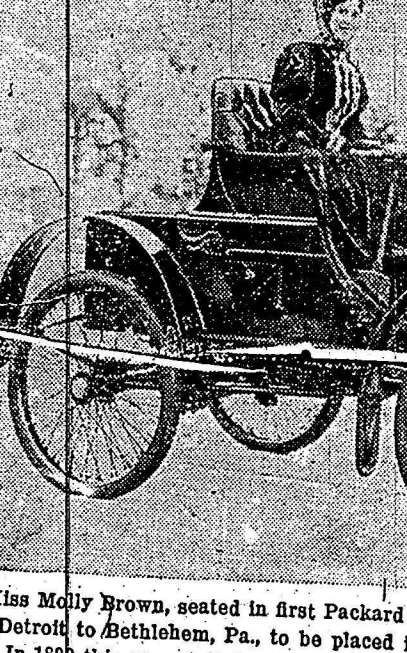
"Do you hear me?" he yelled. "I've a train to catch."

The Civil Servant turned and said quietly, "Did you say you had a train to catch?"

"I did!" snapped the man.

"Then it's a railway station you want. This is a post-office."

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.

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 some might be of them had to be sent to a German firm in New York to be fitted. In case of breakage they had to take the trip to New York again to obtain another eye.

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

Leprosy Victim To Hospital

553 St. James St. Toronto. The victim of leprosy, who has been in the hospital for some time, is now being transferred to the hospital at St. James St. Toronto.

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