



WAVELENGTH CONGESTION

By R. M. SHERRILL (Radio Engineer)

The present arrangement of broadcasting wavelengths is utterly inadequate to provide sufficient wave bands for all of our stations. The existing channels are badly overcrowded now, and the worst part of it is that applications for new stations are constantly coming in. This congestion is particularly bad in large centres such as Chicago and New York.

It is not reasonable to expect that science will, in a short time, be able to develop broadcasting to a point where stations may work on wavelengths which are much closer together than they are now. About the only other alternative is to extend the band of broadcasting wavelengths.

As the wavelengths above 550 meters are internationally used for naval communication, they cannot be taken over by broadcasting. Thus the only possible extension can be into the lower wavelengths. Although the amateurs now occupy the waves below 200 meters, they have nearly all dropped voluntarily to waves of 150 meters and below. Thus it seems as though the most logical remedy for the present congestion is to extend the broadcasting range down to 150 meters.

Of course, most of the receivers used today will not tune low enough to pick up these stations, and the behavior of receivers at these lower waves will be quite different from what it is now. But—these difficulties will gradually work themselves out.

Eventually, the lower wavelength stations will have a higher status than they do now. It is possible, on the lower waves, to transmit farther with a given amount of power. Also, the reception of the short wave broadcasting is not bothered so much by atmospheric interference. It is confidentially expected that broadcasting below 200 meters will be in effect before the close of 1925.

Radio and the Gas and Light Bills

At a recent convention of the New Jersey Association, it was announced that it had been definitely determined that radio was causing



a greater gas and electricity consumption in the home. Due to the variety of entertainment offered by the radio, people

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RADIO QUESTIONS AND ANSWERS

Mr. Sherrill will be glad to help you solve your radio problems. Write him, care of The Durham Chronicle.

L. P. A. asks: "Can I tell when my A battery needs charging by the reading of the voltmeter on the panel of my receiver?"

Ans.—You should use a hydrometer for this purpose, as the voltmeter will not indicate that the battery is low until it is almost completely discharged.

R. C. S. says: "I am trying to use alternating current for heating the filaments of my two stage A. F. amplifier. What is the method of getting rid of the AC hum that results?"

Ans.—Connect a potentiometer across your AC filament supply.

POISON IVY

Year after year, as folks fare forth to camp or summer cottage, interest in poison ivy revives. Many have yet to learn to recognize these low, bushy, slightly woody-stemmed plants, rising from long rootstocks at or just below ground level, and bearing characteristic leaves of triple, smoothish, pointed leaflets, and frequently the old clusters of round, whitish fruits beneath them, says Herbert Groh, Botanical Division, Central Experimental Farm.

Failing to recognize and avoid the plants, many people, susceptible to poisoning, find themselves presently interested in remedies. Few seem to be aware that on contact with the weed, they should promptly remove all traces of its virulent oil by freely lathering the skin with strong soap, and rinsing under hot, running, or constantly changed water. Inflammation resulting from unsuspected exposure, or neglect of the above precautions, may be relieved by applying solutions of baking soda or Epsom salts, one or two teaspoonfuls to a cup of water, and bandaging. Various elaborate treatments are offered which are seldom

are staying at home more; they are sitting up late at night and using the electric light while they listen to radio programs. And, as they are at home more, they are doing more cooking and baking, and thus use more gas. The manufacturers of gas and electricity are apparently well satisfied with the effect of radio on their businesses.

Broadcasting Parliament

The British Prime Minister has suggested the broadcasting of certain debates in both houses of Parliament. The proposition has created



a great deal of interest among the British radio public, and there has been much discussion pro and con. Such an innovation would greatly help the national status of broadcasting as well as bring the voting population in closer touch with their representatives.

It has been pointed out, however, that unless the debates to be broadcasted are carefully selected, they would probably prove more boring than interesting to the average listener.

Radio Warns of Icebergs

Ever since the Titanic disaster of 1912, the United States Government has undertaken the patrol of the North Atlantic to protect shipping from the dangerous icebergs. The radio plays a most important role in this work, and modern high powered equipment is used to warn of the presence of the bergs.

This spring, two new patrol boats equipped with 2KW tube transmitters were added for this work. These ships, both of which have the call NIKK, use specially designed tubes and transmitters which are particularly adapted for use at sea. Their unusually high power insures that their warnings will be received under all weather conditions.

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Connect the two wires from the A. F. transformers, which formerly led to the negative side of the filament, to the contact arm of the potentiometer. The potentiometer is then adjusted until the hum is at a minimum.

D. B. F. asks: "What can I do to prevent my A battery clips from corroding so fast?"

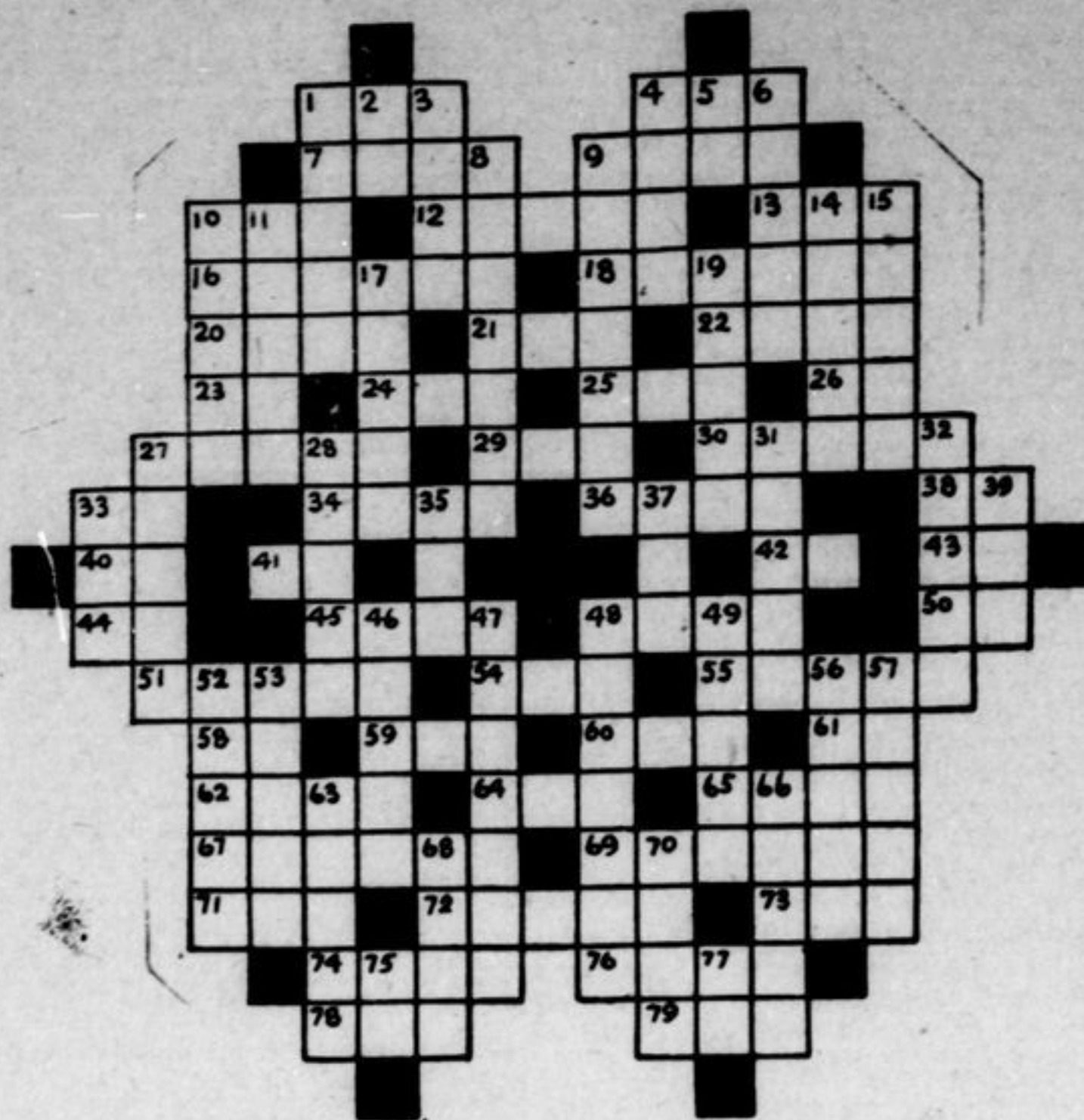
Ans.—About all that you can do is to clean them and the battery terminals frequently. It will help some to keep the clips and the battery terminals covered with vaseline.

any more helpful, or so readily available.

It is surprising how few efforts are made to clean up ivy from constantly frequented public and private grounds. Though eradication is bound to be laborious, there are plenty of people who could safely work at it. In hard or rocky ground, wherever injury to the soil does not matter, dry salt or strong brine might be applied before growth becomes too dense, or after mowing it with a scythe. Caustic soda and other poisonous chemicals are also recommended. As a rule, however, direct removal of the rootstocks from the soil, by means of grubbing hoe, potato hook, digging or ploughing, when possible, is preferable. Sometimes when growing in leaf mold or rich soil, astonishingly long strands of rootstocks can be dragged out intact. This is most safely and easily done before spring growth commences. Small patches have been thus cleared up at one operation which would have required repeated spraying.

Half the fun of loafing is knowing you should be working.—Columbian Record.

Cross Word Puzzle No. 17

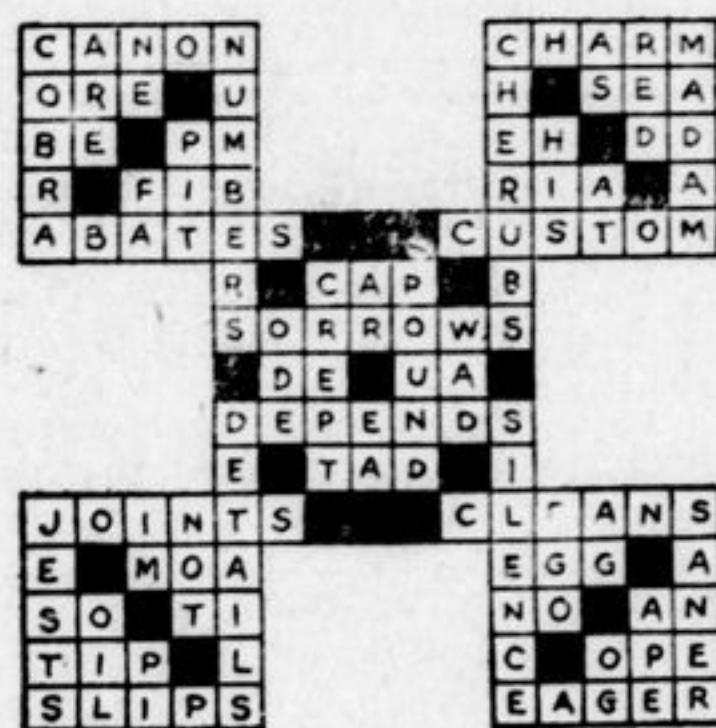


HORIZONTAL

- 1. An habitual drunkard
2. Short sleep
3. Pile
4. Beak of a bird
5. Form of "to be"
6. The Mohammedan bible
7. United States of America (Abbr.)
8. Humiliates
9. A French boy's name
10. Beginner or novice
11. Card or label
12. Friar
13. Printer's measure
14. Born
15. An American humorist
16. That is (Abbr.)
17. Welcome
18. Shred or tatter
19. Away from
20. Mother
21. Check or guide
22. A nobleman
23. And (Latin)
24. Form of "to be"
25. The Egyptian sun god
26. Half a printer's measure
27. Negative
28. 3,1416
29. Pace
30. Lethargy or insensibility
31. A point of the compass
32. One who names
33. A constellation
34. Expatriate; make amends
35. Military Academy (Abbr.)
36. Topsy's friend in "Uncle Tom's Cabin"
37. Vessel
38. Fourth tone of scale
39. The dipper constellation
40. Woman under religious vows
41. Idiots
42. Sofa
43. Tower
44. Point of the compass
45. Abrupt or precipitous
46. Arid
47. Sea eagles
48. An extinct pigeon-like bird larger than the turkey
49. A sheltered place
50. Neither

- 3. Receive or accept
4. One of Columbus' three ships
5. Aluminum (Abbr.)
6. The king of darkness
8. Back door or gate
9. Traveling equipment
10. A flower
11. Verse
12. A girl's name
13. An old Dutch and German liquid measure equal to 9 gallons
14. Mountain (Spanish)
15. Daub or stain
16. Neglected, untanned boy
17. Rub out
18. Fold goods in rib-like form
19. Rigid; tight
20. Plan
21. Anger
22. Ceremony
23. A pedal digit
24. Handle or manage
25. Bodies which revolve about the sun
26. Enumerated
27. Estate
28. Entertain
29. Female horses
30. Proffer or present
31. Dirty
32. A metal
33. Zeal; eagerness
34. An Anglo-Saxon slave
35. Above or on
36. Regarding
37. Accomplish

Answer to last Week's Puzzle No. 16



BIRD SHORT-CIRCUITS LINE; RINGS PHONES

No less than 2,000 London telephones rang simultaneously for a period of several seconds on Saturday morning about 8.30, and in every case when the phone was answered, the usual "hello" met with no response. As a matter of fact, the cause of the ring was uncontrolled at the central switchboard. It came instead from the hydro sub-station at Horton and Ridout streets where a common, ordinary sparrow had picked at a high tension wire, while standing on the iron work at the top of the hydro tower. A short circuit was caused at once, and the

juice went back to what is known among electricians as "ground." As it happens, the party line telephones are operated on this same ground system, and by some means or other the electricity, as soon as the short circuit occurred, ran back into the telephone lines and rang the bell in 2,000 homes.

A Mean Quibbler

She (after throwing suitor over): "You lied to me, you mean thing! You told me he was financially embarrassed." Miss Ryval: "I did not lie. He is financially embarrassed—he has more money than he knows what to do with."

THE PEOPLE'S MILLS

- Sovereign Flour, per bag \$5.00
Eclipse Flour, per bag...\$4.65
White Lily Pastry Flour per bag...\$4.00
White Lily Pastry Flour, 24 lb. bag...\$4.10
Feed Flour, per bag...\$2.25
Rolled Oats, per bag...\$4.00
Chopped Oats, per 100 lbs. \$1.80
Crimped Oats, per 100 lbs. \$1.80
Mixed Chop, per 100 lbs. \$1.80
Chopped Oats, per ton lot \$35.00
Crimped Oats, per ton lot \$35.00
Mixed Chop per ton lot \$35.00
Gunn's Tankage, per 100 lbs. \$3.25

Gunn's Big 60 Beef Scrap and Poultry Foods

BLATCHFORD'S CALF, PIG and POULTRY FOODS

Our Feeds are of the Best Quality, and our Flour is Guaranteed. Prices right for Cash

Highest Price Paid for Wheat delivered at the Mill

Goods Delivered in Town Every Afternoon

Phone 8, Night or Day.

JOHN MCGOWAN The People's Mill Durham, Ont.

SPARROWS ROUT THIS INQUISITIVE TERRIER

"Bob" Poked His Nose Too Near a Baby Sparrow That Had Fallen From a Nest.

A pure-bred fox terrier in London sustained a devastating defeat Monday morning in a pitched battle with seven sparrows. "Bob," the terrier, was determined to investigate a small sparrow which had fallen from a nest. He poked his long nose nearer and nearer in canine anticipation. He was within a few inches of the small bird when there was a rush of wings and a volley of squeaks, and he was sud-

denly in the midst of a young cy-clope of pecks and squawks. He put up a game scrap for about two minutes, snapping at moving targets that always eluded his white teeth. Finally the pecks became more than he could stand, and he retreated precipitately toward a safer and a better hole.

IN THE MOONLIGHT

In the cold moonlight, his lips were white. While hers were vivid carmine shade. Our hero felt the call to arms. And joined the colors unafraid. —Chicago Phoenix.

Specials This Week

Women's Black Kid, 1 Strap Slippers, low heel, at per pair \$1.60

Women's Black Canvas 1 Strap Slippers, leather sole and heel, at per pair 98c.

Misses' Strap Slippers, to clear at per pair \$1.50

REPAIRING A SPECIALTY

J. S. McIlraith The Cash Shoe Store Durham, Ont.

Henderson's Bakery advertisement featuring an image of a loaf of bread and the text 'What Makes Good Toast? That plate of crisp, hot-buttered toast for breakfast carries good cheer through the day. But do you know that it is the presence of sugar in Bread that gives the delicate golden-brown bloom and beguiling flavor in toasting? GOOD BREAD baked with an extra amount of cane-sugar makes perfect toast. It coaxes back the appetite—starts the day right—delights your family at any meal. Henderson's Bakery'

Visit the Capitals

See their Points of Historic and National Interest

Know historic Ontario, know its points of interest, know the two Capital cities—Toronto and Ottawa—that lie within its borders. All through the Province there's a wealth of national and historic interest which should be familiar to every man, woman and child.

An intimate knowledge of our seats of Government will result in a better appreciation of our country's institutions. It will make better citizens of the boys and girls.

This summer, get the family in the car and drive either to Ottawa or Toronto. Both cities are at their best in summer time. In each you will receive courtesy and attention from those who are in a position to give you information as to what you should see.

Good highways to the Capitals lead from every direction. They are in excellent condition, and in every case will take you through magnificent stretches of farm and orchard lands, or by lakes and rivers and woods.

Take your time and see the country as you go. Don't attempt any speed records. They have all been made. Fast driving is dangerous; it detracts from the pleasure of your trip because you cannot see the country; it destroys road surfaces and thus it makes your trip more expensive than it need be.

For your money is used to repair damaged roads in Ontario. The user must pay. In your own interest, you are requested to minimize this damage and you can do so by moderate driving. Your co-operation is confidently depended upon.

An advertisement issued by the Ontario Department of Highways to secure the co-operation of motorists and truck drivers, Automobile Clubs, Good Roads Associations and all other public spirited bodies, in abating the abuse of the roads of the Province. The HON. GEO. S. HENRY, Minister; S. L. SQUIRE, Deputy Minister

Classified A

Advertisements under this heading... CASH WITH ORDER; six cents per line... Saturday night of week orders... 25 cents. On all charge orders... will be made each insertion, m

Medical Directory

DRS. JAMIESON & JAMIESON Office and residence a short distance east of the Hahn House 4 Lambton Street, Lower Town, Durham. Office hours 2 to 5 p.m., 7 to 8 p.m. (except Sundays).

J. L. SMITH, M. B., M. C. P. S. Office and residence, corner Countess and Lambton Streets, opposite old Post Office. Office hours 9 to 11 a.m., 1.30 to 4 p.m., 7 to 9 p.m. (Sundays excepted).

DR. A. M. BELL

Office on Lambton Street (the Dr. Hutton's office). Office hours 2 to 5 p.m., 7 to 9 p.m., except Sunday.

C. G. AND BESSIE MCGILLIVRAY Chiropractors, Durham, Ontario. The Science that adds life to you and years to life. Consultation free in Durham Tuesdays, Thursdays and Saturdays. 614 23

Dental Directory

DR. W. C. PICKERING, DENTIST Office, over J. & J. Hume's store Durham, Ontario.

J. F. GRANT, D. D. S., L. D. S., Honor Graduate University of Toronto, Graduate Royal College Dentists, Surgeons of Ontario. Dentistry, all its branches. Office, Calde Block, Mill Street, second door east of Macbeth's Drug Store.

Legal Directory

MIDDLEBRO' SPEERMAN & MIDDLEBRO' Barristers, Solicitors, Etc. Successors to A. B. Curry. Mr. C. C. Middlebro' is permanent located at Durham office. Priceville Branch open every Friday from 4.30 to 9.30 p.m.

LUCAS & HENRY

Barristers, Solicitors, etc. A member of the firm will be in Durham on Tuesday of each week. Appointment may be made with the Clerk in the office.

Licensed Auctioneer

DAN McLEAN Licensed Auctioneer for County of Grey. Satisfaction guaranteed. Reasonable terms. Dates of sales made at The Chronicle Office or with himself.

ALEX. MacDONALD Licensed Auctioneer for Co. of Grey. Moderate terms. Arrangements for sales, as to dates, etc., may be made at The Chronicle Office, Durham. Terms on application. Address R.R. 1, Durham, Phone 611 r 24.

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BATES BURIAL CO.

FUNERAL SERVICE New Modern Funeral Parlors Phone Hillcrest 0268 122-124 Avenue Road Toronto John W. Bates R. Maddocks Formerly of Flesherton

FARMS FOR SALE

LOT 7, CON. 21, EGREMONT, containing 100 acres; 85 acres under cultivation, balance hardwood bush, convenient to school; on the premises are a frame barn 42x65 ft. with stone foundation; concrete slab; also hay barn 30x50 with stone basement; hog pen 20x30; twelve-room brick house, furnace heated, also frame woodshed; drilled well close to house, with windmill; concrete water tanks; 30 acres seeded to hay 10 acres to sweet clover; this farm is well fenced and in a good state of cultivation. For information apply to Watson's Dairy, R.R. 4, Durham, Ontario. 10-25-23 4

NORTH PART LOTS 7 AND 8, CON. 22, Egremont, containing 66 acres; 55 acres cleared, balance hardwood bush; in good state of cultivation frame barn 44x50, stone basement concrete stables; drilled well and cement tank at barn. Also Lots 4 and 7, Con. 4, S.D.R., Glenelg, containing 110 acres; 100 acres cleared and in good state of cultivation; on the premises are a brick house containing seven rooms, with good frame woodshed attached; drilled well at door; never failing springs of this farm, making a choice stock farm. This property will be sold right to quick purchaser. For particulars apply at Watson's Dairy, R.R. 4, Durham, Ont. 10-25-23 4

FARM FOR SALE

Lot 66, Con. 2, W.G.R., Bentinck 2 1/2 miles southwest of Durham, containing 86 acres. Mostly clear and in good state of cultivation. Barn with shed adjoining and stone stables. 7-roomed brick house with extension kitchen and woodshed. Well watered and in good repair. For further particulars apply to William Smith, R. R. No. 3, Durham.

Don't call a road builder a highwayman or he may chase you with a steam roller.—Bridgehouse Review