

# The Automobile

**BATTERIES FREEZE.** into the acid or an explosion is likely to result.

It is very important that the electrolyte in a car be kept as pure as possible, else the battery will not run. This means that its electrolyte should be kept as pure as possible. The 1280 mark is as practical as possible, after a battery has been in use for six months or a year this may be impossible, because part of the electrolyte or liquid contents may have been spilled and replaced with water, or some of the active material may have dropped off the plates and lies in the bottom of the acid so it cannot be removed. The electrolyte when the battery is recharged.

Consequently, if a battery has been recharged until it gasses freely for three hours and the electrolyte reading comes up to 1280, it is well to add a little acid so that as the battery is used its specific gravity will not drop low enough to allow it to freeze.

This can be done by removing some of the electrolyte and adding sufficient sulphuric acid to bring it up to the required strength, or by mixing acid with distilled water, a mixture reading about 1400, and using instead of distilled water when the electrolyte becomes low. In mixing, always add or pour slowly the acid into the water—never the water

**CINDER AND CEMENT FLOORS.**

For my cellar and garage I have laid a good dry floor which ought to serve equally well for a henhouse or other farm building.

Excavate ten to twelve inches below the top of the finished floor, level off and tamp.

If the house sets so that the ground slopes away from it, slope the excavation to a low point and from this lay a drain a short distance from the house, terminating in a pit filled with broken stone. Put a strainer over the pipe and a few broken stones on the inlet end. Fill in six to eight inches with engine cinders and tamp. For the top four inches mix six parts of cement and one part of sand, add water and turn again until the mass is thoroughly wet but not sloppy. Then spread over the cinders and tamp. A good way is to place screeds and level with a straight edge, drawing the straight edge over the screeds. This must be tamped until solid but not so hard as to cause the concrete to disintegrate.

Finish the top with one part cement and two parts clean, sharp sand, working the mixture under the trowel until the top surface is smooth and the moisture has been brought to the surface.—R. C. N.

**How Long is a Day?**

If you met a man, and he casually remarked that he ate \$15 meals yesterday, you would either be amazed at his appetite or take him for a hard-boiled nut. But the man may be a surgeon, where they have a day and a half months in length. On the whole it would be wise to should undertake to do certain things so much a day in payment of understanding just where the day is to be done, or one might have a day and a half hours at a time. If it happened to be the longest day of the year, or all the time from May 21st to July 22nd if in some parts of Norway.

In Petrograd the longest day is nine hours and the shortest five hours. In Finland there is a twenty-two-hour day. In London and at Bremen the longest day is sixteen and a half hours; at Hamburg and Dantzic seventeen hours, and at Washington about fifteen hours.

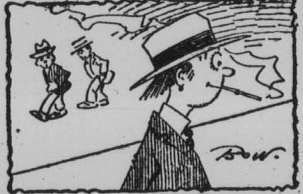
**Too Much Economy.**

Tom—"You got engaged last week, old chap, didn't you?"

Fred—"Yes, but that's all of now."

Tom—"Why—incompatibility of temper?"

"Not at all, rather the reverse. She suggested my practicing economy, and I started by getting her an imitation gold ring."



**Free Verse.**

"He's a writer of free verse, you say?"

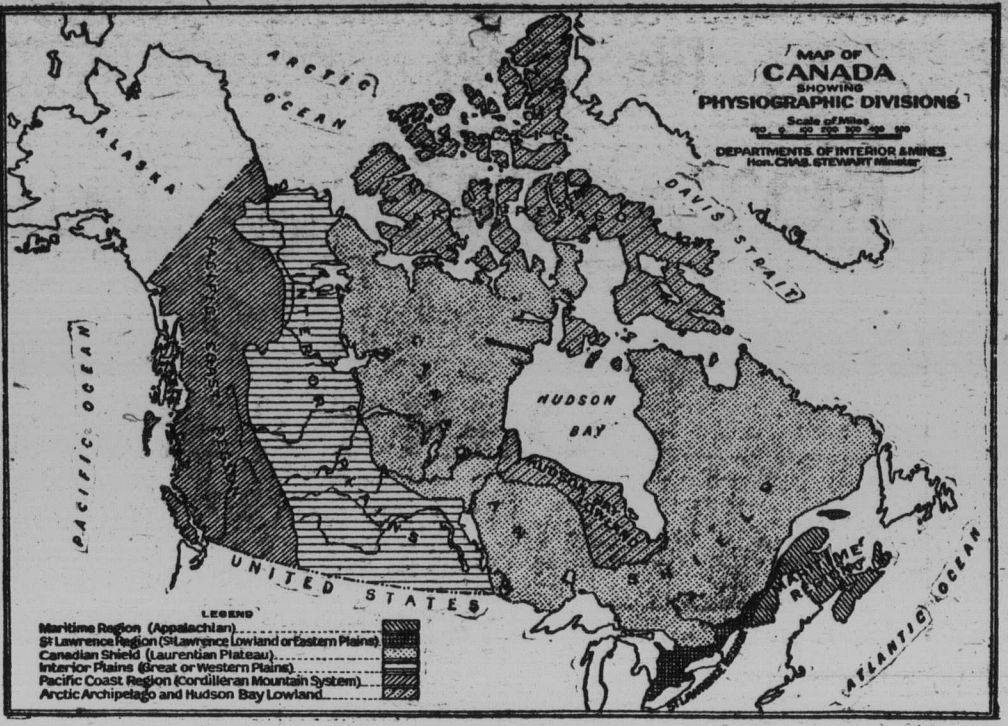
"Yes, he's never been paid for a poem yet."

1	2	3	4	5	6	7	8	9	10
11				12		13	14		
		15				16			
17	18		19	20	21			22	
23	24		25	26				27	
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47		48				49	50	51	
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55	56			57		58		59	
60				61		62			

**CROSS WORD PUZZLE**

Every number in the form represents the beginning of a word, reading either horizontally or vertically. If there is a black square to the left of the number, the word is horizontal; if above it, the word is vertical. The same number may of course begin both a horizontal and a vertical. The definitions for the correct words to fill the form are found below, with numbers corresponding to those on the form. Run through the definitions till you find one that you recognize, and put it in its proper place on the form, one letter for each white square. This will furnish several cross-clues to the words linking with it at right angles. Continue in this manner till the form is completely filled. If you have solved the puzzle correctly it should read both horizontally and vertically with words corresponding to the definitions.

- |   |  |
|---|--|
| 1. To cultivate, as land                              | 1. A fixture for drawing a liquid from a container.                          |
| 5. A pet name for "Margaret"                          | 2. Associated Press (init.)  |
| 7. Dregs  | 3. To tear   |
| 11. Place where bees are kept                         | 4. A girl's name   |
| 13. The East  | 5. Belonging to me   |
| 15. To raise or move with a lever                     | 6. To move   |
| 16. A period of existence                             | 7. A ferocious animal  |
| 17. Credit (abbr.)                                    | 8. Even (poetic)   |
| 19. A pronoun   | 9. Half the width of an em   |
| 21. Sped  | 10. Strips of leather used as handles.                                       |
| 22. An exclamation of triumph                         | 12. An Indian peasant  |
| 23. To bring forth                                    | 14. Actual   |
| 25. A track worn by passage through a wilderness.     | 18. An ancient sun god of Egypt  |
| 27. To soak up  | 20. Pressure as of necessity   |
| 28. A place famous for a certain wizard (Pairy story) | 21. Properly   |
| 30. A light carriage with one pair of wheels          | 22. A cry of surprise  |
| 31. A preposition                                     | 24. A negative   |
| 33. Frozen water                                      | 26. A three-toed sloth   |
| 34. A wooden tray or trough for carrying bricks       | 27. Street (abbr.)   |
| 35. Above   | 28. A sudden sharp hissing or sibilant sound such as that of a flying bullet |
| 38. A negative  | 29. To increase  |
| 39. To have   | 34. A writing securing to an inventor the sole right to use his invention    |
| 41. A quadruped                                       | 35. You and me   |
| 42. To utter harsh rebuke                             | 37. A Hawaiian bird  |
| 43. A negative connective                             | 38. Upon   |
| 47. Towards   | 39. Part of the body   |
| 48. A playing   | 40. In such a manner   |
| 49. To utter quickly like a bark (slang)              | 43. The animating or essential part of a human                               |
| 51. A point of the compass                            | 44. Alpitio  |
| 52. An enemy  | 45. A bone (anatomical)  |
| 53. In a tidy fashion                                 | 46. Small children   |
| 55. Atmospheric disturbances                          | 48. A reservoir for water  |
| 56. Epigote   | 49. The juice or fluid of a plant  |
| 57. To deviate from the right course                  | 50. Before   |
| 58. A tist (Scotch)                                   | 51. Back (abbr.)   |
|   | 52. An old form of "you"   |
|   | 53. Senior (abbr.)   |
|   | 54. A pronoun  |



**Studying Canada Geographically.**

Unfortunately, to most readers the term "geography" has but an academic meaning. As a matter of cold reality, however, our national geography is the largest single factor affecting Canadian development. It is about as little academic as a mortgage. It is a bigger and more important business fact than the public debt. It is a permanent, fundamental factor touching our national development at every turn. To study and make known the physical property which the Canadian people own and have to develop is the general object of the Natural Resources Intelligence Service of the Department of the Interior.

Great credit is due the Geological Survey Branch of the Department of Mines for the work it has pursued in studying the physical geography of the Dominion. The accompanying map is a product of that work. It shows Canada in the light of its basic physical divisions—the only light in which one can intelligently study our economic geography or make any sound appraisal of the physical value and commercial possibilities of our national property.

The geography of Canada is the bed-rock factor which fixes the value of

the Dominion as a national property—as our means of national support and growth. And the intelligent development of the country requires above everything else a clear, broad grasp of its geography, of its physical nature and layout.

Canadian development has been and will continue to be greatly advanced by dozens of different forms of constructive public action. Railway building, immigration, industrial research, technical education, the collection of adequate data—these and countless other lines of public activity enter into the work of widening, strengthening, guiding or illuminating the course of national growth. But underlying all such constructive enterprise is the one basic fact that our national progress rests finally and always upon the geography of our national property. A thorough knowledge of the geography of the country is the cornerstone of any true appreciation of Canada's development possibilities and problems, and of any broad-visioned development policy for the Dominion as a whole.

Yet it is a fact—that geography, as it affects the business life of the Dominion, is about the only feature of Canada which has not been studied in a broad-gauge way. Not one Canadian out of a hundred has anything more

**New Dictator of Persia Was Unlettered Private.**

Reza Khan Pahlevi has been called the Mussolini of Persia, but in ambition he apparently overleaps even the Italian dictator for he is said not to be content to remain as prime minister but to cherish hopes of founding a dynasty of his own to supplant that of the deposed shah.

Reza is the son of a peasant farmer and it is even now a debatable point as to whether the prime minister's

straightforward brutality which is the privilege of the incorrupt egotist. He is fighting for a centralized Persia because the expansive power of his ruling ambition demands the widening of his field of action. It is only incidental that while he is satisfying his primitively savage hunger for power he accomplishes the unification of the unruly tribes in a single national entity.

Reza Khan has an army such as Persia has not had for a long time. It consists of 40,000 soldiers. Reza pays them regularly, feeds and clothes them, thereby assuring for himself

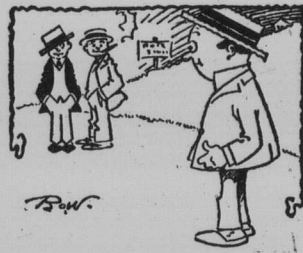


academic achievements extend beyond the ability to write his own name.

His career he commenced as a private in a Russian Cossack regiment. Yet Reza Khan must have shown exceptional abilities since he rose continually in the esteem both of his superiors and his comrades. That was the reason why he succeeded in keeping together a handful of men after imperial Russia collapsed and his regiment was disbanded.

In February, 1921, Reza Khan, together with his soldiers, overthrew the government, appointing a prime minister, and selected himself as the minister of war of Persia. In October, 1923, he discarded the civilian cabinet and, with the aid of a second coup d'etat, assumed the premiership. Since that time he has been Persia's prime minister.

Reza Khan possesses much of that



**Not There Yet.**

"There's a man I'd like to see in jail!"

"Why don't you go see him then?"

"He hasn't done anything he could be jailed for yet."

**Keep Tab on Fish.**

The Department of Marine and Fisheries has marked a considerable number of Atlantic salmon, by attaching silver tags to their dorsal fins, for the purpose of tracing the movements of these fish. A salmon that was marked and liberated off Burns point, Port Maitland, Yarmouth county, Nova Scotia, on June 11 of this year was killed in the Moise river, Quebec, in the early part of July. If this fish took the most direct route it travelled about 800 miles, but if it followed the larger indentations of the shoreline it travelled over 1,200 miles.

**Spiders Lit Up.**

Spiders that glow like fire-flies have been discovered in Central Burma.

# HAVE AN IDEAL

An ideal in life is a wonderful asset to success. It is quite believable that a man who always thinks great thoughts about his life's work is almost beyond the possibility of failure.

The people who never seem to make good are those who try to get through in a slipshod fashion. Anything slipshod is an impediment and keeps us back. The people who have won through are those who have decided on the thing for which they will live and work; and, having decided, never permit that goal to be far out of sight.

A boy determines he will pursue a certain course in life, and he begins, say, to study for engineering. He will have to face many a setback; but if he is wise he will plod on, determined that, come what may, he will do nothing to discourage himself. He will study everything possible about his chosen profession and go forward with enthusiasm towards the prize before in view. To such a youth there can be no failure; he will face the music, come what may. This is so throughout the whole world. The men who count are those who are wedded to their ideals and leave nothing undone that will help to gain their end.

Have you ever thought what it has cost to produce the world as we see it? What hurricanes and earthquakes and catastrophes and shocks have been experienced in order to make this world so beautiful? And we are given to understand that even in this matter the best is yet to be! The finale of Nature's wonderer is not yet. She still holds in her secret away the wonders our children will come to look upon as commonplace.

And so in morals, ever believe that the world of men is getting worse. Let others speak of "the good old days" as they may, it still remains a fact that the best days any of us know are those that make up our lives today. If past days were good, let us rejoice with those who lived in them; but we must never believe it is true that there were better days than our own. Better people than ourselves may have lived, but the best, even in this matter, is yet to be.

Some people refer to the newspapers and suggest by the contents that men are no better than before. But remember, the papers record the unusual and extraordinary and that which is newsy and out of the way. People are better in living than formerly, and every discovery and effort to uplift men is another aid to the one increasing purpose that flows through all things.

In the walk of life we are called to do our best towards furthering the cause of a perfect and wholesome world; and the best way to do so is calmly and patiently to follow the gleam from the ideal that we have set for ourselves or others have set for us. Character is the factor that counts most in life.

We are here to laugh and be jolly! So long as we have the joy of life in us, we shall plod our way and every step will lead forward. The fluctuating life is dangerous. To be spasmodic is to degenerate. Discover the right road; then keep on keeping on!

**Answer to last week's puzzle:**

B	E	S	T	O	R	A	E	G	G			
A	R	T	A	B	O	D	E	L	I	E		
G	R	A	N	D	I	L	O	Q	U	E	N	T
S	R	O	D	E	U	S	E					
R	D	E	L	F	A	N	F					
L	O	T	R	A	T	A	L	P	R	O		
E	Y	E	S	B	E	T	Y	O	R			
T	A	X	M	E	D	A	L	T	I	E		
L	P	A	L	L	U	Z	T					
W	S	I	R	B	R	O	E	F				
I	N	T	E	R	N	A	T	I	O	N	A	L
N	E	E	Y	O	K	E	D	T	H	O		
S	O	P	H	B	E	E	D	E	A	R		

**Spiders Lit Up.**

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It's a sure sign that winter is coming when you see Dolby taking the moth balls from his ear muffs. His flappers are very sensitive to the frost and his is not immune.