SAM LOYD'S CYCLOPEDIA OF 5000 PUZZLES TRICKS AND CONUNDRUMS

WITH ANSWERS

CYCLOPEDIA OF PUZZLES

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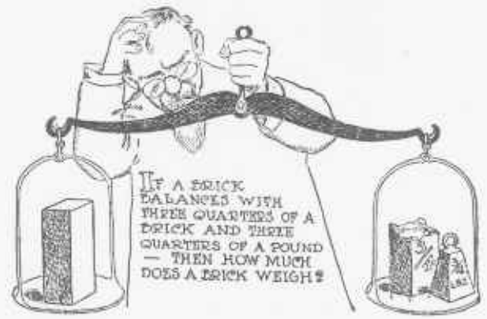
OF

PUZZLES

BY

SAM LOYD



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PREFACE

The Cyclopedia of Puzzles presents to that legion of people, young and old, who delight in puzzle-solving, a comprehensive collection of puzzles garnered during many years of pleasant labor in the fields of Puzzledom. All the best of modern puzzle creations, as well as those of ancient origin, together with their solutions, are gathered in the Cyclopedia.

Almost every page may be regarded as a little family puzzle department in itself, containing as it does a variety of puzzles, simple and difficult, mathematical and otherwise. A lover of puzzles browsing through the pages, whether he be the veteran solver or the youngster who is just beginning to agitate his grey matter with riddles and word puzzles, will find abundance to feed upon.

Puzzling is a pastime of very ancient growth, rich in historical associations, and embracing much that is romantic, as well as scientific. The Cyclopedia abounds in those classical tidbits which, collectively, give us as true a history of the art and literature of puzzledom as may be written.

I have always treated and considered puzzles from an educational standpoint, for the reason that they constitute a species of mental gymnastics which sharpen the wits and train the mind to reason along straight lines. As a school for cleverness and ingenuity designed to make of study a recreation, and as an aid to both scholar and teacher, I dedicate this work to the schoolchildren of America.

SAM LOYD.

NOTES

The Cyclopedia of Puzzles contains over 5,000 puzzles, tricks, conundrums, riddles, etc., of which about 1,000 are illustrated.

Solutions to the puzzles are printed in the last pages—from page 340 to page 384 in consecutive order. To find the solution of a puzzle turn to the solution pages, and note at the top the numbers of the puzzle pages to which they apply. It will then be a simple matter to locate the sought-after solution. For example: The first solution page, 340, as noted at its top, contains answers to puzzles appearing on pages 7, 8, 9, 10, 11, 12, 13 and 14. Many of the charades and word puzzles throughout the book are accompanied by their solutions expressed in simple numerical cipher; that is, the letters of the alphabet are represented by numbers in corresponding order. For instance, the word "CYCLOPEDIA" would be expressed by 3, 25, 3, 12, 15, 16, 5, 4, 9, 1.

Such puzzles as are accompanied by their answers are not duplicated in the solution pages.

A PRIZE OFFER

A number of puzzles in the book have been selected as **"Prize Puzzles,"** so of course their solutions are withheld.

A prize of one hundred ($100) dollars will be awarded to the person who sends in the best set of correct answers to these "Prize Puzzles" **before the first of January, 1915.**

A feature of the contest lies in the fact that each solver must in the first place discover the "Prize Puzzles," which can be identified through the absence of their solutions, so do not write and ask which they are. That is for you to find out.

As the reader proceeds through the book he should make notes of such puzzles as he discovers have no given solutions. If complete, that will be the list of "Prize Puzzles."

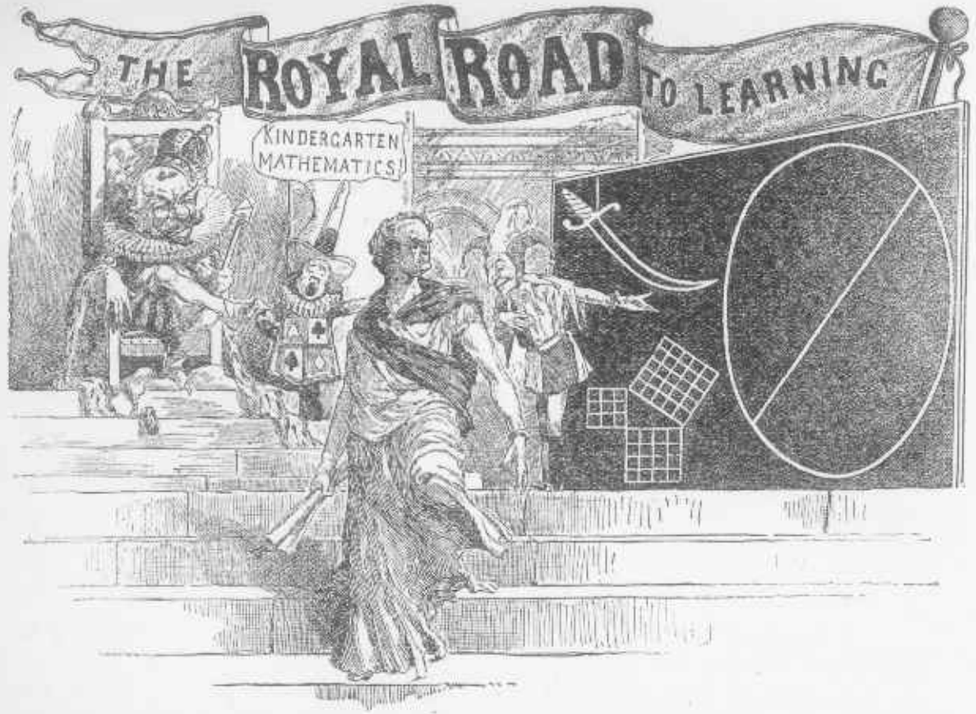
There are no conditions attached to this prize offer other than that a contestant's solutions must be sent collectively—the answers to the complete set of "Prize Puzzles" forwarded in one envelope, and posted not earlier than December 1, 1915, and not later than January 1, 1915, addressed to SAM LOYD, New York Press Club, New York City.

If you do not succeed in securing answers to all of the "Prize Puzzles," nevertheless be sure to send in your best efforts, for a number of complimentary prizes will be awarded among those who rank highest in the contest.

The first prize of $100 will go to the author of the best received. Best means best from every possible standpoint, correctness, method of expression, etc.

Mr. Loyd will personally superintend examination of all answers.

To be eligible to enter this contest it is not necessary to own outright a copy of the Cyclopedia of Puzzles. Several members of a family may send in their individual papers while working from the same volume.



HISTORY TELLS HOW Euclid, the Greek mathematician and philosopher, who flourished 300 years B. C., while expounding the problem of subdividing the circle to King Ptolemy, was interrupted by the irate monarch exclaiming: "I am wearied by such dull lessons, and refuse to burden my memory with stupid rules!" Whereupon the great mathematician replied: "Then your majesty will graciously permit me to resign the position of Imperial instructor, for none but a fool knows of a Royal Road to Mathematics."

"Right you are, Euc!" interjected Beppo, the court jester, as he pushed his way to the blackboard," and, in accepting the position so gracefully tendered, I will proceed to demonstrate how the great principles of higher mathematics can be taught by simple kindergarten methods which children may understand and remember."

"Philosophers say:" 'what is learned with pleasure is never forgotten, but knowledge can not be beaten into the head with a wormwood club.' "Pupils should not be made to commit rules to memory; everything should be explained so that they can formulate rules in their own language. A pedagogue who teaches rules would be a good one to train parrots!"

"Dry mathematical problems are more digestible when presented in palatable form, and the mind becomes stored with valuable information when the illustrations are gleaned from the classical tid-bits of history."

"Mathematics, which constitutes the most important branch of learning, forms the groundwork of the arts and sciences, and is so essential to the successful man of affairs, as well as the development of a clear brain, that parents should realize the advantage of encouraging an early love for puzzles, tricks and problems among their children."

"With the kind permission of your majesty," continued Beppo, "we will now elucidate the subdivision of the circle by asking Tommy Riddles, the court crier, whose learning is limited to the science of simple addition, to show into how many pieces it is possible to divide a German Pancake with seven straight cuts of a knife?"

"Furthermore, to add a point to the moral of the story of the sword of Damocles, which is shown to be suspended over our heads by a single thread, we will proceed to impress it indelibly upon the memory by connecting it with a scientific and practical problem: Why is the blade of that scimeter always shown to be curved?"

"Noting with pleasure the presence of the 'Pons asinorum,' the ass's bridge problem, which my distinguished predecessor has made famous as his 47th proposition, which proves that the square described on the long side of a right-angled triangle, termed the hypothenuse, is equal to the sum of the squares of the other two sides, I will ask the author of the 47th proposition to tell how many rails of equal length it would require to enclose a right-angled triangular field if one of the three sides was 47 rails long?"

"The clown's 47th proposition" will doubtless prove that many good mathematicians have much yet to learn regarding the wonderful principles of Pons asinorum which may be said to underlie the foundations of mathematics and geometry.

NOTE.—"Pons asinorum" originally applied to 5th proposition—First Book of Euclid—that "The angles at the base of an isosceles triangle are equal to one another."

Proposition: Can you mark off exactly 50 points

My chum and I were taking in the side shows the other day, when we struck what the man told us was the squarest game in the world. There were ten little dummies which you were to knock over with base balls. The man said take as many throws as you like at a cent a piece and stand as close as you please. Add up the numbers on all the men that you knock out and when the sum amounts to exactly 50, neither more nor less, you get a genuine Maggie Cline cigar with a gold band, worth a quarter.

Our money gave out before we learned how to win, and we noticed that lots of people didn't smoke any more Maggie Cline's than we did. The man who run the business said he didn't mind telling us that people let their predjudices ruin their chances. An Irishman would always soak the coon, while the darkies had it in for that Chinaman, and as a matter of fact every one had their race prejudices which kept them from winning.

Can you show how we might have made exactly 50 points, and won a Maggie Cline cigar with a gold band around it?

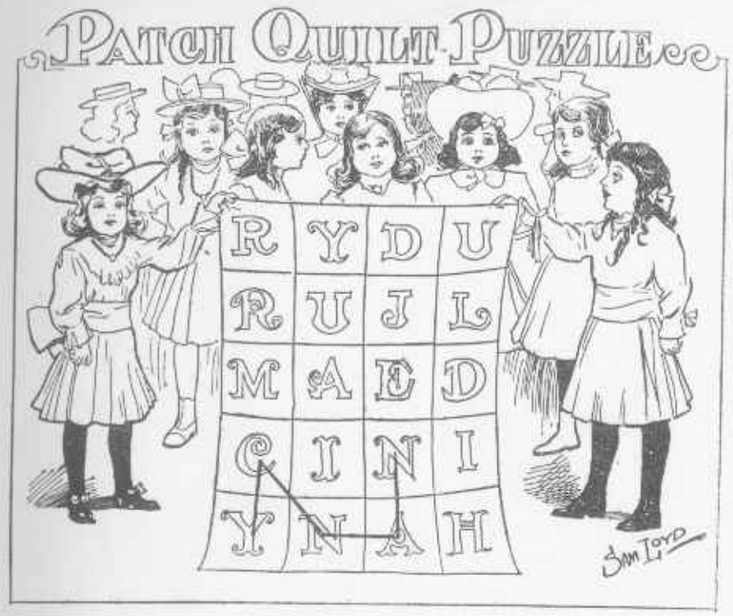
Puzzle of the Iceman

Every blank is to be filled with a word ending in i-c-e.

At the time of the summer ——, the iceman, whom no one should accuse of —— or ——, put up a —— at an —— in his ——, put the effect that with——toward none he would give good —— to all, without —— or ——.

Accordingly, he supplied the polician with——, the lawyer with——, the doctor with a ——, the judge with ——, the builder with a —— and a ——, the gambler and his —— in their den of —— with ——, the bridal party with ——, the clergyman with a ——, the cat with ——, the drinker with ——, the geologist with ——, the woodman with a——, the sailor with a ——, the dentist with a ——, the dressmaker with a ——, and no one with the ——.

But in spite of all his efforts to supply ice to ——, some people objected so srongly to his ——, that they applied to the —— for —— regarding a ——, by which they might either push him into a —— or over a ——!



The children have worked all of their names into a wonderful patch-quilt puzzle, which they are going to present to their teacher. Commence wherever you please and go from square to square, and see how many names you can discover. Beginning at N, for example, as shown by the lines, you can spell NANCY, but when you find all of the others you will know just how many scholars went to this school in Puzzleland.

Sammy's Sketch-Book

If you can only draw a little bit you might find lots of things worth showing. Sammy spent a few days on the farm and filled his sketch-book full of interesting things. Here is what he calls "pastural still life." The second view represents "a moving picture" of the same scene, showing the animals getting up on their feet. As an elementary drawing lesson, you are invited to sketch the moving scene as it appeared to Sammy. Upon second thought I give that part of his letter which described this picture:

"P. S.—I want to say that the first thing I did after getting here was to go to the barnyard, and I found that the story that horses and cows never lie down to sleep is a fake. I send you a picture I made of them as they were lying in the barnyard. I watched them a long time, and they never moved, except the cow, which had a piece of chewing gum in her mouth, and to be certain that the horse wasn't dead I hollered 'Shoo!' And you ought to see them scramble to their feet."

P. S.—Do you remember how Houdin, the famous magician, used to exercise his memory by glancing in a store-window and then telling how many things he could recall having seen during a one minute's inspection. He said most people went through the world without noticing anything. Did you notice the moon in my picture? It tipped the wrong way! The moon always tilts to the left. I drew that moon to make fun of Nelly; she wrote a poem and spoke about "the fleecy clouds behind the moon." Who ever heard of clouds behind the moon! The moon is always behind the clouds, but I drew it to make her mad.

P. S.—I sketched some hop vines and what they call pole beans, but do you know how to tell which are the hop vines? Hop vines always twine round to the left, while the others twist round to the right. You learn lots of things in the country.

P. S.—The Smith boy was down here Sunday, I asked him how many eggs he thought a peacock laid. He counted a brood of little ones and said "ten." I then told him that peacocks don't lay eggs. A peacock is a a gentleman peacock, the peahens lay eggs. "You might just as well ask how many eggs does a rooster lay?" But Smithy is a city chump and don't know lots of things.

P. S.—Do you see that chicken looking at the dog? how do I know its a dog? because a cat can't have a white tip to her tail. If a cat has any black on her at all, the tip of her tail is black, while if a dog has any white anywhere, the tip of his tail will be white. You never saw a chicken meandering by moonlight in your life, nor did you ever see a hen with spurs! Did you think of that?

P. S.—I drew this picture to see if you can illustrate the difference between a horse or a cow getting up; but talking about that chicken, can you tell why it is like a farmer? Can you tell that it is a large chicken? What parts of an army do you see? Why does it remind you of the gas man? What parts of a mountain do you see? What part of a kite? What part of a will? What part of a needle? What should it lay on the dressing table? What else does that chicken show that is interesting? Show the source of a river, three nicknames, something on a canal, and part of a table.

P. S.—I won't wait to see how you draw the horse and cow getting on to their feet, because I guess a person has to live in the country to learn that a horse always raises bow end up first, while a cow gets up stern end first. The first horse and cow must have begun to get up that way, oh an awful long time ago, and all other little horses and cows did the same as their parents.

Here is another Rail Road Puzzle, which illustrates a pretty mathematical principle and at the same time points a moral and adorns a tale which all might ponder over to advantage:

"I am satisfied that some cows have more sense than the average man," soliloquized Casey, in his philosophical way. "My old brindle was standing on the long bridge the other day, placidly looking into the water, when she spied the lightning express, just twice the length of the bridge away from the end, coming at a ninety-mile an hour clip. Now, she did not waste the forty-eleven-millionth part of a second in idle speculation; she just made a dash towards the advancing train and saved herself by the narrow margin of one foot, whereas, if she had followed the human instinct of running away from the train, three inches of her rear would have been caught on the bridge!"

"It would be a great thing if some procrastinators, who never can make up their minds one way or the other, were placed in the position of my old brindle cow, so they had to think quick!

"It is a pretty problem to reckon the gait of that cow, and to tell how far she was standing from the middle of the long bridge! Can you figure it out?"

A REBUS.

A term for scolding, backwards read,
Will give what all good people dread;
A character so base, that none
The epithet would call their own.
Rail—Liar.

A vessel reversed will give the highest point, and a child's toy. Pot—top.

Spell one word with the letters: To Love Ruin. (Revolution.)

Why is a watch like a river? Because it doesn't run long without winding.

A REBUS.

My first's the heart of honest trade,
When 'tis judiciously displayed;
But when 'tis of its head bereft,
It then becomes a public theft.
Cypher Ans. 19, 16, 5, 3, 21, 12, 1, 20, 9, 15, 14.

CONCEALED GEOGRAPHY.

34. It is the belief of the ancients that heroes' souls soar to islands of the blessed.

35. He has my R. N. as a monogram on all his note-paper.

36. He broughht orses to Hannah, antelopes to Carrie.

37. A Psyche in marble he adored as if alive.

38. I am her stupid sister.

39. Kate can't tell a wren cemented, from a wren demented.

40. In adusting the baby-jumpers, I adjusted the baby, so that it fell out. (A country.)

41. The calmest man is sometimes made irate. (An island.)

42. Away they went and over the race-course spun.

43. The sale must commence at one o'clock.

44. Would you bid a cow or ox bury their dead?

45. What do you call Mr. Rarey? A horse-tamer, I call him. (A country.)

46. The only animal taken was a Kangaroo. (An island.)

47. The moment I walked I saw three crows on the bedpost.

48. After singing a "te deum," bag, O soldier, your booty. (A lake.)

49. The Ojibbeway retired and the Mosquito led on his troops.

50. They made a hue-and-cry, but ah, of no avail. (A territory.)

51. You should see Parepa Rosa cram entomological specimens into her bandbox.

52. Socrates considerredd a warming pan a matchless affair.

53. King William wrote a letter to a hunter.

A REBUS.

Fair Bessie promised to bestow
My first upon her lover,
And much I hope that no dark clouds
Around the pair may hover.

Sweet Bessy's age is just eighteen,
Of gold she has my second;
On bearing off the lovely prize
How many beaux have reckoned.

And now my riddle I'll conclude,
And hope you'll not me quiz,
For what I say is very true—
My whole fair Bessy is.
Cypher Ans. 8, 1, 14, 4, 19, 15, 13, 5.

What pudding makes the best cricketer? A good batter.

Tom went out, his dog with him; he went not before, behind, nor on one side of him, then where did he go? On the other side.

Why was Moses the most wicked man that ever lived? Because he broke all the commandments at once.

Why are crockery-ware dealers different from other merchants? Because it won't do for them to crack up their goods.

Why is a baby like wheat? Because it is first cradled, then thrashed and finally becomes the flower of the family.

On what toe does a corn never come? The mistletoe.

What is the difference between a hungry man and a glutton? One longs to eat and the other eats too long.

Where lies the path of duty? Through the Custom House.

Why should turtles be pitied? Because theirs is a hard case.

Why should young ladies set good examples? Because young men are so apt to follow them.

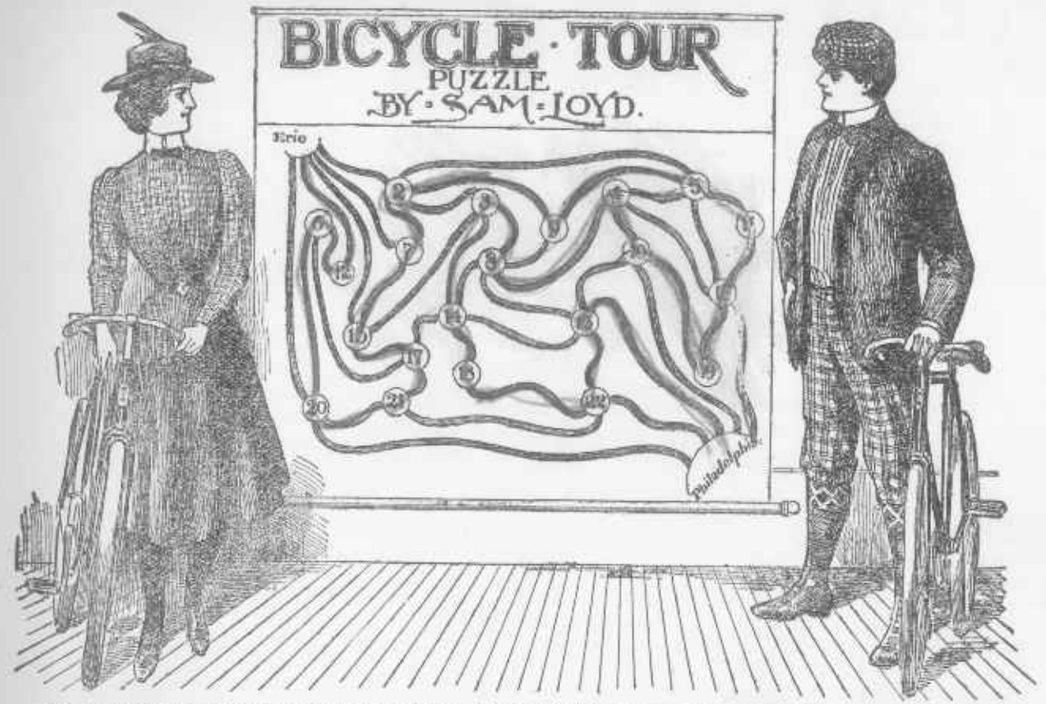
Why should the male sex avoid the letter A? Because it makes men mean.

Why must chimney-sweep ng be a very agreeable business? Because it suits (soots) every one who tries it.

Why is a joke less durable than a church bell? Because after it has been told (toll'd) a few times it is worn out.

Why is Ireland likely to become the richest country in the world? Because its capital is always doubling (Dublin).

Why should you never tell a man to take a back seat? Because, if you do, he'll be likely to take affront.



PROPOSITION—Show the route from Philadelphia to Erie, passing through all the towns but once.

NOW THAT THE L. A. W. and Good Roads Association have done so much toward bettering the bicycle paths of the country, it is being suggested by the press that something might be done to impart an artistic finish to many popular routes for the benefit of those who ride by the wheel or auto. Whether it is intended to round off the harsh corners and convert the straight lines into graceful curves, or to induce the malicious fiends who scatter tire-puncturing carpet tacks along the paths, to throw poppy and sunflower seeds instead, is not made clear, but the idea is a good one, and suggests the accompanying artistic map, with a pretty puzzle incidentally added.

The map shows twenty-three prominent cities of the State of Pensylvania connected by bicycle routes of more or less artistic design. The problem is a very simple one: merely start on your summer outing and go from Philadelphia to Erie, passing through every one of the cities but once and without going over any road twice. That is all there is to it. The cities are numbered so as to enable solvers to describe their routes by a sequence of figures. In this trip the usual practice of getting there by the "shortest route possible, etc.," will be dispensed with. Just get there without minding the cyclometer, and get an answer by giving the sequence of towns passed through.

A Bicycle Mishap.

Here is another pretty bicycle puzzle which confronted Fred and his best girl on that same circuitous cross state tour which was to culminate at Erie. They had gone some distance when Fred's sprocket wheel broke off in such a way that temporary repairs were out of the question, and they were so remote from any hope of other assistance that it was deemed to be a mere question of reaching home in the shortest possible time. The young lady could be depended upon to maintain a five-minute clip to the finish. Fred was an expert rider who could keep up a three-minute speed when riding upon his own wheel—but if he rode her wheel it reduced his speed to three and a half minutes.

It was evident when the accident occurred that some walking must be done. She could walk a mile in twenty minutes, handicapped by leading a wheel. He could walk a mile in fifteen minutes encumbered with the broken wheel.

An extra sprocket wheel was at home and could be attached in ten minutes, so assuming they left home at 10 A. M. and returned at precisely 6 P. M., the problem is to tell how far they have travelled by their cyclometers, if they had gone as far away from home as was possible in accordance with the conditions described.