THE BATTLE OF THE FOUR OAKS

PROBLEM BY SAM LOYD

PROPOSITION—Divide the field into four parts.

HERE IS AN ODD little puzzle based upon the possibility of dividing a square field, upon which there is a row of four trees, into four pieces of the same size and shape, and to be so arranged that each of the pieces will contain one of the trees. The puzzle is based upon an incident which is said to have occurred in the Far West, at a place called Four Oaks, which derived its name from the main facts of the story as told to me, although it had to be considerably modified to be presentable in puzzle form. I have had to reduce the field of operation, as shown in the sketch, to what might pass for a five or ten-acre plot, and to place the trees in a row, whereas, according to the popular version of the story, the piece of ground covered some seven thousand acres, and the four oaks, which served as important landmarks, were nearly a mile apart. I was told that Four Oaks derived its name from the fact that one of the early settlers ,who owned a large tract of land, having devised it to his four sons, with the stipulation that they should "divide it into equal portions, as indicated by the positions of four ancient oaks, which had always served as landmarks."

The sons were unable to divide the land amicably, as the four trees really furnished no clue to guide them, so they went to law over it and squandered the entire estate in what was known as the "battle of the four oaks." The person who told me of it suggested that it might form the groundwork for a good puzzle, which it has done, so far as the suggesting of a theme is concerned, but it is needless to say that the problem and sketch is given to show how puzzle ideas may be gleamed from any incidents as we journey by the way with our eyes and ears open. The picture represents a square field with four ancient oak trees, equal distance apart, in a row from the center to one side of the field. The property was left to four sons, who were instructed to divide the field into four pieces, each of the same shape and size, and so that each piece of land would contain one of the trees. As the puzzle is an impromptu one, gotten up on the spur of the moment, somewhat in the nature of a challenge to fill the bill as told, it is really not very difficult, nevertheless it is safe to say that everyone will not hit upon the best possible answer.

What is best out? A conflagration.

A REBUS.

An animal tired of his kind,
Being just inclined to go astray;
One slightly changed came up behind
And surely then it flew away.

CHARADE.

My first for ages dangerous reckoned,
Was ne'er so deadly as my second;
If rightly you conjoin the two,
I tell what every man should do.

Why is a sporting clergyman like a soldier who runs from a fight? Because he departs from his sphere of action (fear of action).

When does a man impose on himself? When he taxes his memory.

Why are chemists and alchemists both of the feminine gender? Because one is an analyser (Ann Eliza), the other a charlatan (Charlotte Ann).
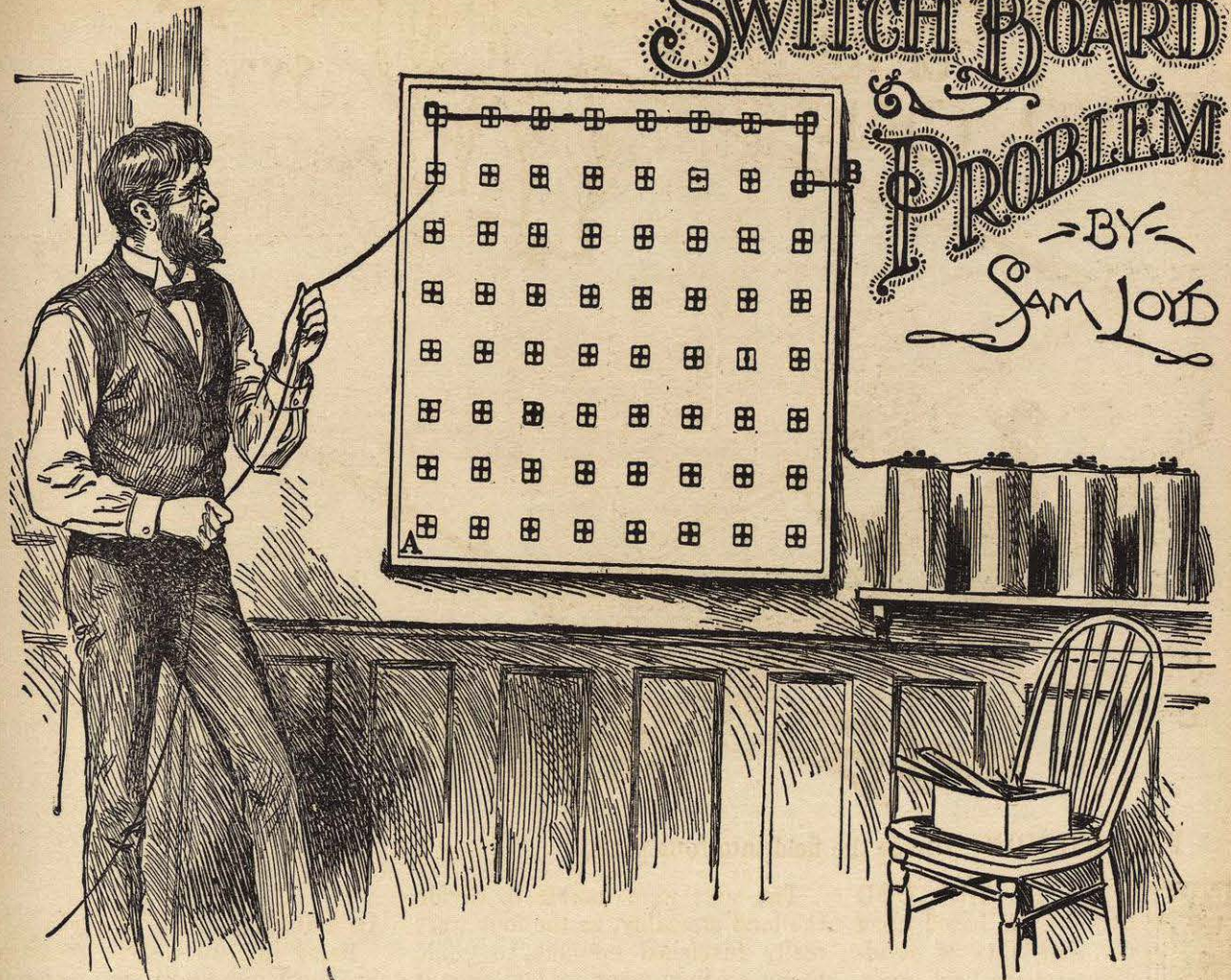
What are the requisites for a lady who desires to enter the cigar trade? She ought to have capital to back her, be up to snuff, always looking for a quid pro quo, and then she will succeed if she chews.

Who was Jonah's tutor? The whale that brought him up.

What is the only pain of which every one makes light? A window pane.

SWITCH BOARD PROBLEM BY SAM LOYD

PROPOSITION—Show how much wire it will take for the switchboard.

AS SHOWING HOW good puzzle ideas as well as information may be picked up from time to time "as we journey by the way," I will give a little problem that I was called upon to tackle the other day, which scores a point for the puzzlist. I found two electricians who had invented some kind of switchboard or annunciator, wrangling over the most economical method of stringing a fine copper wire, which should connect all of the contact points together. It was an elaborate affair, consisting of some hundred points, but as sixty-four is sufficient to illustrate our problem, only an 8x8 section of the board is given.

The problem is to find the shortest length of wire, going from B to A passing across the centers of the sixty-four squares. The squares are supposed to be one inch wide and exactly two inches apart. These dimensions will show that an inch of wire is required in making the necessary winds around the corners in the ages of the proposed route of the wire.

You may draw a similar 8x8 design of 64 squares, observing that two of them can only be crossed in one way, and mark out the answer, showing the line along which you would string the wire, or merely state the least possible number of inches of wire required to perform the feat.

A CHARADE.

My first will range the meadow through,
In savage pride and state;
But should he make my next at you,
Your danger would be great.
My whole in russet cap is found,
And robe of lovely green,
Tall, springing from the marshy ground,
Like some bright Fairy Queen.
Ans. 2, 21, 12, 12, 18, 21, 19, 8.

What is the difference between photography and measles? One makes fac similes, the other sick families.

A REBUS.

I'm of little importance, so off with my head,
To a foe I might then be the terror and dread;
Decapitate twice, and reverse what remains,
And lo! you're a wandering sprite for your pains.
Cypher Ans. 20, 18, 9, 6, 12, 5.

A CHARADE.

Aristides had, of Grecian fame
My first appended to his name!
Where Boreas reigns my next is found,
Immersed in Ocean's depths profound!
My whole the balance rightly scans,
And baffles Fraud's unhallowed plans!
Cypher Ans. 10, 21, 19, 20, 9, 3, 5.

Why are ladies who wear large crinolines ugly? Because they are not even passable.

Why should a man never marry a woman named Ellen? Because he rings his own (K)nell.

HISTORICAL.

Disguised in burger clothes the King passed the guards.

Here is a clever little study in concealed geography wherein you are asked to find the locality of the scene hidden in the description of the picture. Puzzles of this kind are always amusing and instructive, as they familiarize students with their geography, so we give a further instalment of clever hidden subjects:

195. *We seriously* mean to go. (River.)

196. A *rebel belonging* to the Tenth was shot. (River.)

197. When *with a mesmerizer* shut your eyes. (River.)

198. She began gesticulating, and I laughed. (River.)

199. She lost her *hat! a gushing* thing! (River.)

200. How *can a damson* pie be converted into a squash pie? (Province.)

201. Give me a *kiss in genteel* style.

202. It is *astonishing. Ham* and eggs is his favorite diet.

203. Have you a *turban? Go, rascal,* if you have.

204. In the days of Nero, they covered the foot with a *sandal to narrow* it.

205. Simpson, son and *sire, landed* on the twenty-fifth. (Country.)

206. He that is last at the club will *be the last* at breakfast.

207. *Far yet* near, absent though present.

208. Did the old man lean on a *staff, or did* he walk with a crutch?

209. Aunt Jerushy rides a *cream-colored* horse.

210. *Susan loved a maniac;* her only brother objected.

211. Round the rude *crag raves endlessly* the sea.

212. Said Brown Brothers and *Co., Roman, delve* on.

213. Travelers *asperse Polish* innkeepers as extortionate.

214. From the *record oval* mirrors were omitted.

SAM LOYD'S EGG PUZZLE

"Hans," said the corner grocer to his new boy, "now you saw me lay those eggs carefully in a pile, so do not let me hear you tell another customer that you do not know if those eggs had just been laid. Run over to Prof. Klugler and ask how high it is safe to build a pyramid of eggs, if each egg weighs two ounces and would sustain a pressure of eight pounds?"

256

A Charade

Without my first, I'd have you know,
My beard a frightful length would grow;
Discordant noises from my next
Might make you feel annoyed and vexed;
My whole's the best—you need not doubt it,
For he's a rogue who is without it.
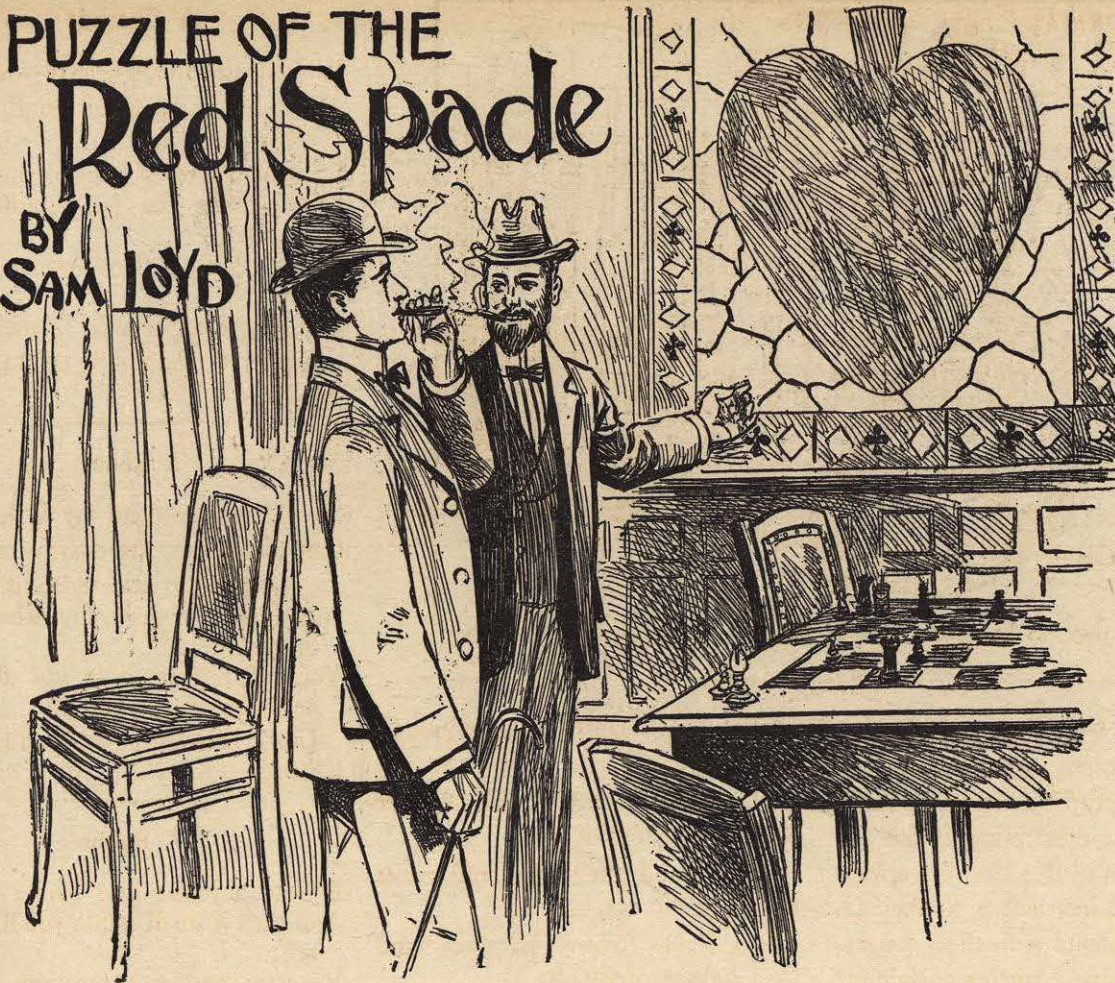Cipher Answer.—8, 15, 14, 5, 19, 20, 25.

A Rebus

Should you suspend my first, no art
Can to my next its charm impart,
Or make it sweetly sound;
And should a rope my whole embrace,
You'll find from it in sad disgrace,
No credit can redound.
Cipher Answer.—23, 9, 14, 4, 16, 9, 16, 5.

A Rebus

Behead a young and tender family,
And then a small estate you'll plainly see;
Reverse, and a protection safe is found,
When the midnight darkness envelops round.
Cipher Answer.—2, 18, 15, 15, 4.

PUZZLE OF THE Red Spade BY SAM LOYD

PROPOSITION—Show how to change a spade into a heart.

DURING A RECENT visit to the Crescent City Whist and Chess Club my attention was called to the curious feature of a red spade which appears in one of the windows of the main reception room. The design came from Dresden, and, after the manner of cathedral windows, is made of numerous small pieces of stained glass skillfully fitted together, so as to make the desired pattern.

No reason was ever vouchsafed, nor even asked for, regarding the incongruousness of the color of the emblem. It was looked upon as a blunder which occasioned considerable comment at first, but which came to be looked upon afterwards with favor, not only on account of the novelty of such a thing as a red spade, but from the recognized point that a black spade would make the room too dark.

Hearing, accidentally, however, that a blunder had actually been committed by the manufacturer, in that the ace of hearts was to have been the insignia of the club, I was led to examine the window carefully and foundd that the spade was composed of three pieces, and speedily discovered that by proper arrangement of the three pieces they would fit together so as to form the ace of hearts, as originally desired.

The members have become so accustomed, not to say endeared, to their unique emblem that they would not consent to having the same changed, nevertheless it makes a unique although simple puzzle, and the honor will be divided among such of our young friends as discover the best way of dividing the spade, as shown, into three pieces, which can be arranged so as to form a perfect ace of hearts.

My first for trembling oft is named,
My second in the battle famed;
Both these, when joined to make my whole
Will name a poet full of soul.
Shakes-pear.

My first is the sound made by my second, but my whole does not exist?
Hum-bug.

My first is an insect, and my whole is used to frighten children and foolish people?
Bug-bear.

A REBUS.

I am borne on the gale in the stillness of night,
A sentinel's signal that all is not right.
I am a swallow, yet skim o'er the wave;
I am a doctor, yet patients I save;
When the sapling has grown to a flourishing tree,
It finds a protector henceforward in me?
Bark!

CHARADE.

Eliza was looking untidy to-day
As she may very often be seen;
For my whole round her head,
though they useful may be,
Are not ornamental, I ween.
Let her twist up my first in her second at night,
She should take them all out in the morn,
For my whole, though they be pretty well in their way,
Ought never at noon to be worn.
Curl-papers.

Why is an orange like a church steeple? Because we have a peel from it.

257

PLAYING THE SYSTEMS
BY SAM LOYD

PROPOSITION—Show how to win 777,777 francs by betting only the multiple of seven.

THE RECENT STATEMENT that some one had won 777,777 francs at Monte Carlo recalls the principle of Lord Rosslyn's system, promulgated a few years ago.

Without going into the technicalities of the play of roulette as practiced at Monte Carlo we will accept the statement that Lord Rosslyn's system was based upon the principle of playing the multiples of seven, and ask our puzzlists to tackle the following simple problem.

Supposing a player (merely betting on red or black, where the chances are even), lays down a single franc piece seven times in succession and then whether he won or lost raises the stakes to 7 francs and again plays seven times. He then bets 49 francs seven times; then 343 francs seven times; then 2,401 francs seven times; then 16,807 francs seven times; then 117,649 francs seven times. If by thus playing 49 times he chanced to win 777,777 francs, how many times did he win to gain that amount?

This is somewhat simple, nevertheless interesting at the present time as illustrating the utter absurdity of what became known for some time as "Rosslyn's lucky system."

If you cannot produce the exact sum of 777,777 francs at first, a few experimental trials will show that the puzzle is not so mathematical as it looks.

A CHARADE.

My first is a bird, my second a fish,
And each has served upon a warm dish;
My whole an insect which feeds like ourselves
On anything good it finds on the shelves.
Cypher Ans. 3, 15, 3, 11, 18, 15, 1, 3, 8.

A REBUS.

Short was my life, and brilliant my career;
Behead me, I in lovely green appear;
Behead again, I once was made to save
My chosen inmates from a watery grave.
Cypher Ans. 19, 16, 1, 18, 11.

Why is Canada like courtship? Because it borders on the United States.

A REBUS.

A piece of kitchen furniture,
I'm useful in my place;
The servants always like to see
My comfortable face.

Transpose me, quickly drive me hence,
Alas, my pretty creatures!
Where I remain is little sense
And sadly altered features.
Cypher Ans. 18, 1, 14, 7, 5.

A CHARADE.

My modest first would ne'er aspire
To rise above an equal,
To pity of my next has claim,
A safeguard is the sequel.

What is it that which every living being has seen, but will never see again? Yesterday.

Who is the oldest lunatic on record? Time out of mind.

Why does a young lady prefer her mother's fortune to her father's? Because, though she likes patrimony she still likes better—matrimony.

What is the best way to enjoy happiness of courtship? To get a little gal-an'-try.

What must be done to conduct a newspaper right? Write.

258

IN ANCIENT GREECE
BY SAM LOYD

PROPOSITION—Draw the Greek symbol with a continuous line, making the fewest possible turns.

IN LOOKING OVER some photographs of marvelous relics of ancient times unearthed during the recent excavations in Greece, I was struck by the repeated appearance of the symbol of the circle and the triangle. Not entering into the discussion regarding the accepted interpretation of the sign about which many volumes have been written by men of learning, I will merely call attention to the curious mathematical or puzzle feature which always appears to be a part of the scheme in such matters.

The sign is attached to certain inscriptions on memorial monuments somewhat in the nature of a seal or signature, and is suggestive of the well-known puzzle of Mahomet, which, like many similar tricks of ancient origin, was to be drawn by one continuous line. It is a pleasing and interesting feat to discover the method of doing the trick by one continuous line, without going over any line twice, but if we change the turns to the more popular plan of going over the same lines as often as one wishes, and merely require

that the figure must be drawn by one continuous line, making the fewest possible number of turns, it becomes by long odds the best puzzle of its kind ever produced, so it is given to our puzzlists in that form.

My first is a useful animal, my second a root, and my whole is a root. Horse-radish.
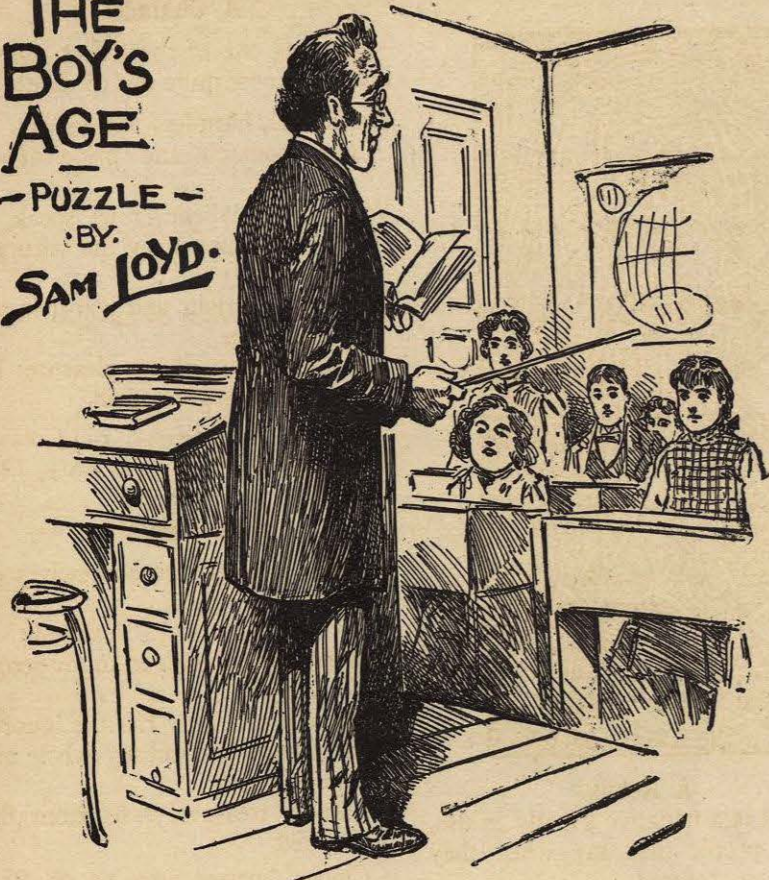
Students in concealed geography are invited to discover the locality of the little incident which I sketched during a trip through foreign parts.

Yacob lent Zena a hand to bring home the fagots

259

THE BOY'S AGE —PUZZLE— ·BY· SAM LOYD.

PROPOSITION—Guess the boy's age.

HERE IS A REMARKABLE age problem, which I am sure will amuse the young folks and at the same time open up a new line of reasoning for some of the wiseacres who make a specialty of statistical calculations.

It appears that an ingenious or eccentric teacher, as the case may be, being desirous of bringing together a number of older pupils into a class he was forming, offered to give a prize each day to the side of boys or girls whose combined ages would prove to be the greatest.

Well, on the first day there was only one boy and one girl in attendance, and, as the boy's age was just twice that of the girl's, the first day's prize went to the boy.

The next day the girl brought her sister to school, and it was found that their combined ages were just twice that of the boy, so the two girls divided the prize.

When school opened the next day, however, the boy had recruited one of his brothers, and it was found that the combined ages of the two boys were exactly twice as much as the ages of the two girls, so the boys carried off the honors of that day and divided the prizes between them.

and on the fourth day the two girls appeared accompanied by their elder sister; so it was then the combined ages of the three girls against the two boys, and the girls won of course, once more bringing their ages up to just twice that of the boys. Again the struggle went on until the class was filled up, but as our problem does not need to go further than this point, to tell me the age of that first boy, provided that the last young lady joined the class on her twenty-first birthday.

It is a simple but pretty puzzle, which calls for ingenuity rather than mathematics, and yields readily to puzzle methods.
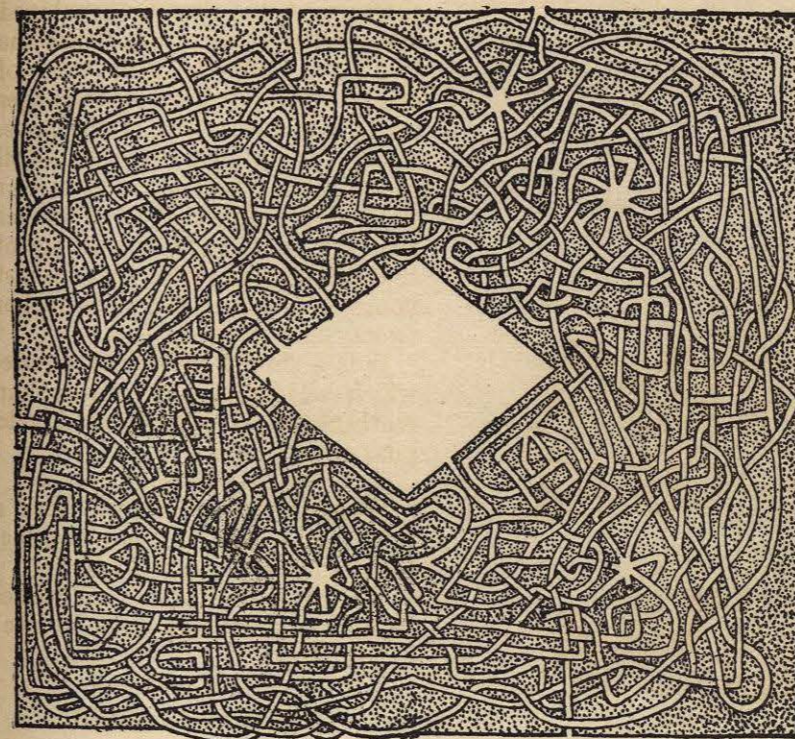
What is that which will give a cold, cure a cold, and pay the doctor's bill? A draught (draft).

What is that which no one wishes to have, yet no one cares to lose? Bald head.

CRIMINAL CLASSES.

As a study in concealed geography we ask our young friends to give the nationality of two hapless foreigners who got mixed up in a scrimmage on the Bowery and got pulled in as burglars, while the real culprits who had a political pull escaped with their booty.

The battle waxed warm now between the Jones and Brown families,

CRIMINAL CLASSES

"Two burglar men I arrested on the Bowery"

A MAZE PUZZLE

Any or every style of puzzle which excites interest or affords amusement is beneficial, in that it trains the mind to concentrate and pursue a line of thought to a definite purpose. Maze puzzles are always interesting to both young and old on account of the historical associations which connects them with noted mazes in ancient parks and gardens, as well as from the inate pleasure we all feel in overcoming seeming obstacles. Of course there are many styles of labarynths with various conditions which make them more or less difficult, but the above may be said to be one of the best because the crossing of paths by means of bridges permits of a much wider range of travel than the old fashioned limitation to branch walks. This puzzle is by Lewis Caroll, who as you all remember, wrote Alice in Wonderland, was a great mathematician and a noted puzzlist. It is supposed to represent poor little Alice lost in the woods; she starts from the little park in the centre and wishes to get out of the woods to go home. Can you give her any assistance in finding the correct path? You will notice that some of the paths are obstructed so as to make you retrace your steps, but not to be discouraged just remember that Euber formulated a rule for solving all mazes. Nevertheless it is quite a clever and difficult puzzle.
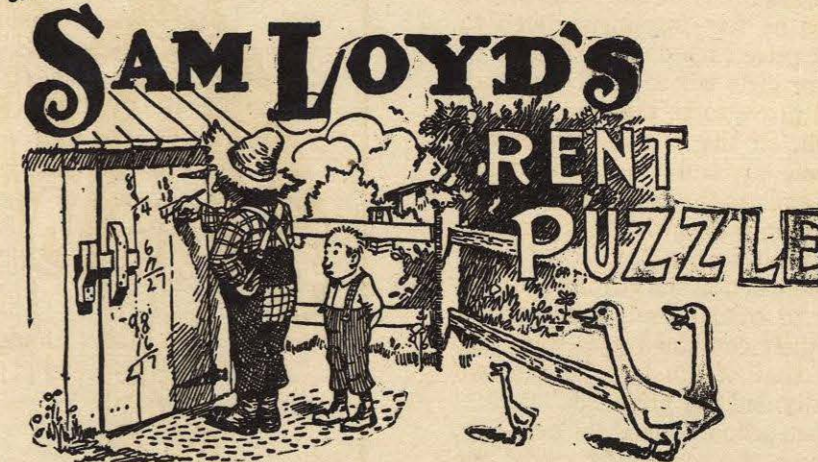
A Rebus

My first is a negative greatly in use,
Which people first say when they mean to refuse;
My second we'll call a measure of weight,
Frequently used when talking of freight.
An article always in use in my whole,
With texture and form under fashion's control;
A something that's needed all over the earth,
Yet often is quoted a thing of small worth.
Cipher Answer.—2, 21, 20, 20, 15, 14.

A Charade

Here is one of the oldest style of charades, now quite out of date:

An animal, harmless and meek,
The monarch and pride of the wood;
What issues whenever we speak,
What is shunned by the wise and the good;
The initials enjoin, and you then will have plain
What often gives pleasure but sometimes gives pain.
Cipher Answer.—12, 1, 13, 2; 15, 1, 11; 22, 15, 9, 3, 5; 5, 22, 9, 12.

A Rebus

My first is a pet the housewives detest,
Its ravages always deplored;
The harp and the green in my second are seen,
Though often my third is ignored.
With a harp in hand my whole may now stand,
Like a treasure, safe from first stored.
Cipher Answer.—13, 15, 20, 8; 5, 18, 9, 14; 12, 1, 23.

A Riddle

Take of a wild beast two fifths, if you will,
Head and tail of a mouse, we will say;
'Twill name what thousands are striving to kill,
Though they're killed by the same every day.
Cipher Answer.—20, 9, 13, 5.

SAM LOYD'S RENT PUZZLE

Farmer Sykes was complaining to Ikey that he agreed to pay $80 cash and a fixed number of bushels of wheat as the yearly rental for his farm. That, he explained, would amount to just $7 an acre when wheat was worth 75 cents a bushel, but as wheat was now worth $1 a bushel he was paying $8 per acre, which he thought was too much.

Can you tell how large the farm was?