Latest Offerings Of Science World

Soap Suds For Fire—Greatest Ocean Depths—Gold on the Rand

Why does water put out fire? That water is wet is no answer at all. Theoretically water ought to be decomposed into its constituent hydrogen and oxygen. In fact this actually does happen when fires are very hot. If water is effective at all in putting out ordinary blazes it is because it cools and because it forms a cushion of incombustible steam which smothers the flame by shutting out the oxygen of the atmosphere.

Water and oil do not mix. Hence the hopelessness of putting out a flaming oil tank with water. The oil simply floats and, supplied with oxygen from the air, not only burns on but carries the fire elsewhere. A heavy blanket must be spread over the oil flame. So on American tank farms a blanket of froth is used—a kind of lather.

Two foam solutions are kept on hand to be pumped separately through twin pipes to mixing chambers on the oil tanks or to portable devices. One solution consists of water and aluminium sulphate and the other of sodium bicarbonate, liquid foaming extract and water. When the two liquids mix there is a rapid effervescence. The bubbles that rise are filled with carbon dioxide gas—one of the most effective fire extinguishers known. The foam oats on liquids and sticks to walls and ceilings. When even a dry wooden wall is thus coated the fire cannot be reignited until the foam breaks down.

If this method works so well in the oil fields and the refineries why should it not be equally effective in putting out burning houses? Reasoning thus, British fire chiefs experimented at a convention which they held recently in London. Harrow firemen, looking as if they had been lathered from head to foot and standing in suds, showed what might be expected when froth is directed against a fire instead of mere water. A very little foam compound was needed to put out an experimental blaze.

BLAKE DEEP.

"Bartsch Finds Greatest Known Sea Depth; Reports Nine-Mile Soundings Off Puerto Rico," read the headlines recently. Alas, the finding now proves to be an error.

Cruising off the northern coast of Puerto Rico, Dr. Paul Bartsch on Eldridge Johnston's yacht Caroline, now given over to scientific work, systematically sounded the bottom of the ocean. From San Juan came a cablegram reading that he had found a depth of 44,000 feet, almost nine miles, thereby adding more than three miles to older soundings in Blake Deep, which lies north, off Puerto Rico.

The actual depth measured by Dr. Bartsch now proves to be 4,400 fathoms, or 26,400 feet. Blake Deep still holds the Atlantic record with 28,300 feet. The deepest "deep" of all is found in the Pacific Ocean. It is the Emden in the Philippine Trench off Mindanao, where the soundings indicate 34,000 feet.

MORE GOLD ON THE RAND

There seems to be little doubt now that geophysical prospecting methods really have discovered the extension of the famous gold reef on the Rand of South Africa. This Witwatersrand has already yielded over four billion dollars worth of gold since its original discovery in 1886.

For years children in the schools of South Africa have been taught that the Witwatersrand was merely the northern rim of a great basin of gold. None knew where the southern rim would be found or how deep the basin went into the earth. The cause of the trouble was a geological fault near the neighborhood of Witpoortje. At this fault the gold reef disappeared.

Last October faint rumors reported that the extension of the Witwatersrand had been found forty miles beyond the known fault. Those rumors have turned out to have been authentic. The discovery is credited to Dr. R. Krahman, who was graduated recently from Charlottenburg University, Berlin. Using geophysical methods and a magnetmeter (which detects changes in a magnetic field), Dr. Krahman started tracing a layer of the mineral magnetite which lay under the gold reef already known. He reasoned that if this magnetite lay under the gold-bearing ores already there it might also be under whatever extension existed. Following the magnetite layer mile by mile he came at last to the reappearance of gold.

Mining engineers at their recent meeting heard authorities state that the new area seems to be over one-half the size of present gold fields and to rank in value with the Far East Rand.

Students Drop Textbooks for Current Newspapers

Chicago.—History text books have been laid aside at the University of Chicago and Northwestern University, temporarily, in favor of current newspapers for a study of banking and other financial conditions.

Happy is the man who believes in his fellow, for it is more blessed to be deceived in some things than to be suspicious in all things.

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On the Links

"Do you play golf?" he asked.

"No," she replied demurely. "I don't even know how to hold a caddie.'

Manager—"A customer has made a complaint that the coffee tastes like mud."

Cook (facetiously) — "Tell him it was ground this morning."

A man can get married on $10 a week, but if he stays married he has to get more than that.

Teacher—"Does the giraffe get a sore throat if he gets wet feet?"

Pupil—"Yes, but not until next week."

It is mighty easy to be an optimist when everything is going your way.

Cure For Seasickness

A plan you might try is to bolt down your meals.

"I didn't cry at the dentist's, dad," informed Willie on his return.

"Good," said Dad. "I like a brave boy. I must give you a shilling. Did he hurt you much?"

"No, dad; he was out," answered Willie.

Clay Mudd, editor of The Brushville Bugle, received from a lady who lives in Pea Ridge, a little poem entitled: "I Wonder if You Miss Me?" After reading it, Mr. Mudd returned the poem to the lady, with the following note: "Dear Madam: If he does, he ought never to be trusted with firearms again."

The world will never get any better until children become quite an improvement over their parents.

Hunter (as he came panting up to one of the party)—"Just met a great big bear in the woods!"

Other Hunter—Good! Did you give him both barrels?"

Hunter (wiping his perspiring brow) —"Both barrels! I gave him the whole gun!"

The minister asked his little girl if she liked his sermon, and she said "No."

"Well, what did you like—the first part?"

"Yes."

"Did you like the last part?"

"Yes."

"Well, what part didn't you like?"

"Oh," said she, "there was too much middle."

"Did you keep to the diet I prescribed for you?"

"I've tried to, doctor, but it hasn't been easy."

"Nonsense! I said you were to eat what your three-year-old baby-boy eats."

"Yes, doctor, I know. Candles, pieces of coal, shoe-laces, india-rubber."

Ever notice that the fellow who sits in the back seat at church usually lands in a front seat at the show?

Loose Change

It is about as hard to drag an old fellow out at night as it is to keep a young fellow in. Remember the robin, he sings in the rain. The only thing that travels faster than light, to a woman's mind, is a run in her new chiffon hose. Asked what he did when his wife started to give him a lecture, a man said: "I listen." Arguments make few friends. The man who comes home whipped at night is usually the man who went out whipped in the morning. Fools rush in where wise girls fear to wed. The more a man really knows, the less certain he is that he really knows anything.

Gladys (indignantly) — "Smoke a cigarette! Good gracious, I'd rather kiss the first man who came along*"

Edith—"So would I, but have one while you're waiting."

Father—"So you want to marry my daughter? Have you considered her family in this matter?"

Suitor—"I have, sir. I love that girl so much I'd be willing to put up with anything."

Blessed is the man who can disagree with me without getting mad about it. orated in green—a delicate jade tone.

One of the many virtues of the green room from the point of view of the flower-lover, is that it affords an artistic background for flowers in all seasons of the year.

WEAK WOMEN

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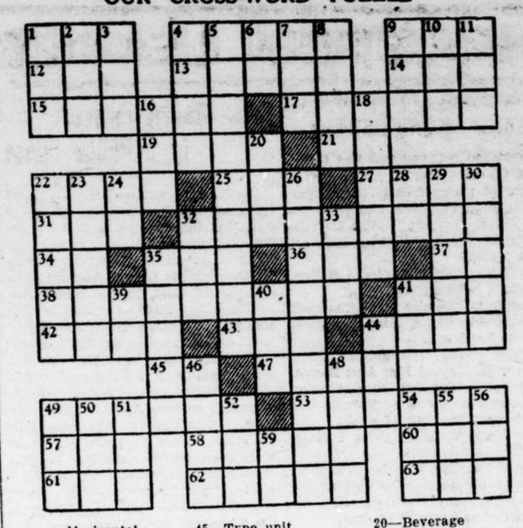
OUR CROSS-WORD PUZZLE



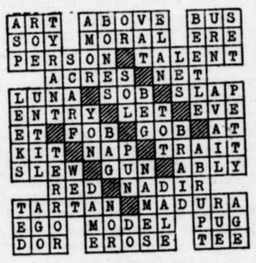
Horizontal

1—To drink
4—Lower animal
9—Sail
12—To be due
13—Listlessness
14—One-spot
15—Rang
17—Transfixed
19—Space
21—Sun god
22—Jewel
25—High mountain
27—Senatorial robe
31—Number
32—Musical compositions
34—Adjoining
35—Fuss
36—Electrified particle
37—While
38—Dissimilar
41—Before
42—Narrow board
43—Pouch
44—Former
45—Type unit
47—Circle
49—Divided
53—Dog
57—Hole
58—Vegetable dish
60—Spanish for river
61—To mimic
62—Grin
63—Japanese coin

Vertical

1—To cut
2—Fear
3—Edible seed
4—Beverage
5—Tries
6—Article
7—To eat
8—Row
9—Small load
10—To cool
11—Couch
16—Song
18—Point in Panama
20—Beverage
22—Paths
23—Up to
24—Part of "to be"
26—Chief
28—Conjunction
29—Parts of machine
30—Item of property
32—Poem
33—Child
35—Later than
39—Musical note
40—Organ of head
41—Comparative ending
44—Self
46—State of confusion
48—Knot
49—Watering place
50—Part of body
51—Consumed
52—Obstruction
54—Arid
55—Falsehood
56—Age
59—Fifty-one.

Answers to Last Week Puzzle



Expert to Produce 459.41 Degrees Below Zero

Berkeley, Cal.—The coldest spot on earth will be in a laboratory at the University of California here if equipment now being installed will produce the 459.4 degrees below zero Fahrenheit it is expected to produce.

This point is known as absolute zero, or "no heat" point. As absolute zero is approached, molecules and atoms lose more and more of their energy. At this point they would, theoretically, have little or none, according to Prof. W. F. Giauque who with other members of his department have developed the apparatus.

Natural scientists have for years sought the absolute "no heat" point, it is explained. By means of the evaporation of liquid helium it has been possible to get within 1.4 degrees Fahrenheit of absolute absence of heat.

True joy is a serene and sober motion; and they are miserably out that take laughing for rejoicing; the seat of it is within, and there is no cheerfulness like the resolutions of a brave mind.—Seneca.

British Firm Designs Maharajah's Palace

A British firm has designed a modern palace for the modern Maharajah of Jodhpur.

Building has begun. The palace will cover six acres and stand on a 120-ft. hill overlooking the capital of the State.

It will contain:

A circular swimming bath sixty feet round.

Ballroom.

Theatre built on modern lines to hold 200.

A bathroom to every suite of rooms —forty in all.

A zenana, or part of the house for the women of the family, with a two-acre walled garden overlooking the city.

The palace will cost £300,000 (about $1,200,000). It would have cost much more in England, but labor and materials in Jodhpur are cheap.

There will be accommodation for fifty women in the Zenana—but the maharajah has only one wife. The zenana will be used for her relatives and guests.

As the women in this State are kept in strict purdah—no man may see them—all the rooms in the palace will be accessible from the zenana by concealed galleries, so that the women may look on without being seen.

Everything in the palace will be in accordance with the latest scientific principles—telephones, electric light, modern bathrooms, with hot water.

British Revise Checker Game

New interest is being added to the game of checkers in England by using "men" with different numbered values, the winning of the game being decided by the total value of the men remaining on the board.

We are too fond of our own will; we want to be doing what we fancy mighty things; but the great point is to do small things, when called to them, in a right sprit.—Cecil.

Wins Pop-Corn Contract

Business is always popping for C. E. Douglas of Oklahoma, who has been awarded the contract to furnish 500,000 pounds of pop corn at the Chicago world's fair.

Amusing Anecdotes Of Famous People

One of the amusing stories told by Major-General Sir Ernest D. Swinton (in "Eyewitness: And The Origin of The Tank"), concerns his meeting with Edna Ferber, the novelist. Miss Ferber and General Swinton — who had come to the United States as aide to Lord Reading—were touring the country in behalf of the Third Liberty Loan drive. Their parties met in Iowa one day and the General, in a humorous mood, told Miss Ferber confidentially that at the last place where his party had spoken twenty people had been crushed to death trying to get into the hall to hear them.

"Was that so, General?" asked Miss Ferber, "And how many were crushed trying to get out after you started?"

• • •

Coming from a lecturer "as is a lecturer," this from Stephen Leacock is amusing:

"No one likes lecturing except those who can't do it. A dull lecturer enjoys his own performance immensely."

Professor Leacock is telling (in "Mark Twain"—a little masterpiece of compressed biography) how poor Mark grew to abominate lecturing, but, alas! needed the money.

Following his marriage to Olivia Langdon—his beloved "Levy" — in February, 1870, Mark Twain lived in Buffalo, N.Y., in a house presented by his father-in-law. Here is a bully picture of the "Innocents at Home," done in the best Leacock manner.

"Behold then Samuel L. Clemens—now become for everybody Mark Twain, the great American humorist —the rough days of his western life put behind him, settled down at number 472 Delaware Avenue, Buffalo, trying hard to be respectable.

• • •

"Here he lives the model life of a family man, joins in morning prayer and listens as best he can to the daily reading of the Scriptures. More than that, he even makes desperate efforts to give up smoking.

"He has his wife at his side, his desk at his elbow, and the world at his feet. After all, what does tobacco matter? Let's have another chapter of Deuteronomy.

• • •

A story is told of a book publisher who, wishing to rid himself of his bothersome authors, determined to write his own books; did so, and lived happily ever after. That does not apply to Grant Richards, well-known English publisher—although he has written a number of books—for he so obviously enjoys the company of authors, and artists, judging from the stories about them in his reminiscences "Memories of a Misspent Youth"—though why "Misspent,"I can't imagine.

• • •

Grant Richards—named after his uncle, Grant Allen, the novelist—recalls Frank Harris, always a mighty talker, telling the "magnificent stories he afterwards published" to a group of literary friends, including Grant Allen and Frederic Harrison, who regularly wintered on the French Riviera. When it was suggested to him that he ought to write them, he declared that to write and publish short stories less good than the best was repugnant to him.

"But your stories are in the very front rank, Harris," they assured him.

"Yes—you think so. But are they equal to Maupassant's best?"

Next year Harris returned with some of the stories set up in type (says Richards). He had had them pulled in "galley" so that he might, with the least possible trouble, subject them to correction and correction. All his friends had to read the proofs and listen to arguments about the advisability of altering this adjective, of omitting that comma. Meticulous? Yes, indeed. His case resembled that of Walter Pater or, more recently, George Moore. And the stories were worth all the labor he spent on them.

• • •

It was while Herbert Spencer was a guest of Grant Allen at "The Nook," Dorking, that the famous story of the philosopher's ear-clips leaked out.

"How it got out we never discovered," says Richards. "My uncle was furious that this eccentricity on the part of his guest should become the subject of paragraphs. But it is true nevertheless. The philosopher carried clips in pocket so that if the conversation was not to his taste, or if he thought it unworthy of attention, he could apply them to his ears and fall back on his own thoughts for companionship."

• • •

Here's a story of Zola — told by Sir William Rothenstein, the artist, and retold by Grant Richards:

"Zola sat to me in Paris," Rothenstein—then a young artist — is reported as saying. "He was very cross that morning, I remember. It was just after he had come back from Lourdes and he was wearing a monk's habit as a kind of dressing gown. He said 'that he never looked at a picture show now,' and so I remarked that books had lately entirely ceased to interest me. After that he never spoke till I had finished the drawing."

• • •

Mrs. Reginald de Koven's first meeting with Oscar Wilde took place in the London apartment of her friend, Mrs. Montton.

"Where in the world do you come from?" demanded Oscar in a loud voice after the presentation had been made.

"I was born in Chicago," Mrs. de Koven replied.

"There was a look of horror in his expression," declares Mrs. de Koven in "A Musician and His Wife," "as he answered: 'Never, no, never; your parents have deceived you!'"

• • •

W. Somerset Maugham, who has made a lot of money from his plays and novels during the last thirty years, is also one of the ablest physicians and surgeons in England. He is a member of the Royal College of Surgeons and a licentiate of the Royal College of Physicians. Maugham's first novel, "Liza of Lambeth," took literary London by storm.

• • •

Dr. Maugham has a brother, Frederick Harrison Maugham, noted barrister and a King's Counsel, who also wields a literary pen. He is the author of "The Case of Juan Calas," being a study of a real case—that of a Huguenot cloth merchant who was sentenced by the Parliament of Toulouse to be broken on the wheel for the murder of his son.

That was in the "good old days," of course!

City Woods

"Go to the woods, little Son?
There are no woods out here."
He leads me to a spot
Where, sharp and clear,
Against the sky they stand—
A dozen trees or so.
"See? Aren't they near?"

A tiny clump of woods
In the midst of a city's roar;
A brave little patch of trees
With branches high that soar
To catch the breeze and rustle it
Amid the leaves they wore.

Closer month by month
The city creeps.
Dwellings, stores, the railways want
more land.
Hard by a lumber yard reaps
Frequent harvest,
Flaunting triumphantly its lumber
Stacked in neat white heaps.

To him it was a forest vast.
To me?
But yes. As I look upward through
the trees
The city sounds draw back.
I see
Again the deep, cool woods back home,
With wild flowers blooming
Underneath each tree.

—Lois King Backus.

Queen Mary Favors Green and Gold For Color Scheme

When the Queen re-decorated her favorite sitting-room at Buckingham Palace, she chose a charmin color scheme in green, white and gold, the green being in a particularly restful shade, with the white and gold introduced in the ceiling decoration.

It is not easy to plan the decoration of the private rooms in a Palace where the pleasant home-like atmosphere is desired without, however, producing an effect that is out of keeping with the background of an official royal residence, but her Majesty possesses a natural flair for choosing gowns that suit the occasion, and decorations that harmonize with their setting.

Green rooms are already having a vogue and their popularity is likely to increase in London with the Queen's example.

Possibly, indeed, the Queen may be regarded as the leader of the revived green-room fashion. She carried out a particularly successful scheme at Sandringham, her much-beloved country home, some time ago, where her private sitting-room there was redec-

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