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Charles Ashton, a London policeman, has received a prize of \$250 for an unpublished bibliography of Welsh literature from 1801 to 1890.

Mars, says R. J. Crowley, the English scientist, is probably in communication with other planets, and these Martians are probably tearing their hair because they can't "get" us on their telegraph circuit.

Some argue that the deepest place in the ocean will be found to correspond almost exactly with the height of the highest mountain. This theory has been disproved within the last year; ocean depths 10,000 feet deeper than the height of Mount Everest having been found.

The extent to which dementia has taken hold of the royalty of Europe is almost pitiable, states the Arkansas Traveler. It is not an uncommon thing to hear of some royal personage who has had his cranium measured for a crown going about with a very ordinary wheel in his hand.

The critics of fruit-growing in California, are advised by the San Francisco Chronicle to read the story from Fresno of the yield of two and a half acres of seedless Sultan grapes. One hundred tons of grapes which will produce \$4000 in raisins is a pretty good return for labor and time expended in this little vineyard.

It may be regarded as somewhat singular that Sir Walter Scott's novels are almost as popular in Paris as are the novels of the eminent French novelist. Translations of his romances are found on every bookstall in numbers, and the Paris Municipal Council has recently shown its appreciation of the author himself by naming a short street after him.

The returns of the Bureau of Statistics at Washington conclusively establish the following facts: That during the last ten years Canada has in every year purchased from the United States a very much larger amount of merchandise than the United States has purchased from Canada, and that this excess of purchases during the ten years has amounted to fully \$125,000,000.

A French paper tells of a new process of tanning by electricity, which, it says, is being used on the skins of stray dogs gathered into the Paris pound. The electric system, it is alleged, transforms the skin into leather in three or four days, against the six or eight months required in the ordinary way. It is chiefly used for ladies' fine shoes, and is notable for soft and delicate qualities.

A savant attempts to demonstrate, in one of our scientific magazines, that there is likely to be a scarcity of elbow room among the earth's population in the reasonably near future. He estimates the present population of the world at something less than one and a half billion. The natural increase, he concludes, will make the figure six billion two hundred years hence, and this, he declares, is the utmost limit of the earth's capacity for sustaining human life. The trouble with all these elaborate estimates and deductions, maintains the New York News, is that they are based upon the hypothesis that man must always live as he lives to-day. Conditions will change as necessity crowds population. Half the people of the earth now rarely, if ever, taste meat. The dense populations of China, India, and some other countries live almost wholly on rice. Analysis shows that the banana contains all the elements essential to human life, and enough bananas can be raised on an acre of ground to supply one hundred people a year. It will be a long time before the standing room-only placard is displayed in the world's theatre.

If recent statistics as to the condition of agriculture in the arid States and Territories, and particularly as to practical results of irrigation, are to be depended upon, remarks Frank Leslie's Weekly, we may expect that the movement in favor of the National policy of irrigation will be materially strengthened. The report submitted to the census office shows that nearly thirty million dollars of capital is invested in productive irrigation, and that the returns have been over sixty-five millions of dollars, or about 218 per cent. The estimated value on June 1st, 1890, of irrigated farms which originally cost \$77,500,000 was nearly \$297,000,000. That is to say, the irrigated lands are worth now four times their original cost. There is a vast expanse of territory now comparatively useless, owing to its arid condition, which, with the introduction of irrigating methods, could be made fertile and productive, and it is becoming a question whether Government aid may not properly be given in furtherance of a system which has proved, according to the statistics given, so immensely beneficial.

UNCONSCIOUS SERVICE

"The bee"—she sighed—"that haunts the clover  
Has nature's errand to fulfill;  
The bird that sings the amare over  
Bears living seeds within his bill:

"Without a pause his flight pursuing,  
He drops them on a barren strand,  
And turns, unconscious of the doing,  
The waste into a pastures land.

"I, craving service—willingly, choosing  
To fling broadcast some golden grain—  
Can only sit in silent musing  
And weave my litany of pain."

I, making answer, softly kissed her:  
"All nature's realm of bees and birds,  
—What is such ministry, my sister,  
Compared with your enchanted words?"

"The seed your weakened hand is sowing  
May ripen to a harvest broad,  
Which yet may help, without your knowing,  
To fill the granaries of God!"

—Margaret J. Preston, in Lippincott.

THE TWO COUSINS

BY HELEN FORBETH GRAVES.

WO is that talking in the hall?" tartly demanded Mrs. Jennifer, and little Lucilla, running to the door, to take a bird's-eye view of matters through its yawning crack, returned with the satisfactory information:

"It's Cousin Olive, saying good-by to Mr. Walbridge!"

Mrs. Jennifer contracted her showy black eyebrows slightly.

"Is Elise here, too?"

"Why, no, mamma—don't you remember Elise went out for a walk?"

Mrs. Jennifer said nothing more; but to one used to the interpretation of dumb show, a world of meaning might have been deciphered in the swift way in which her needle flew in and out of the cambric ruffle she was hemming.

"Olive!" she called, sweetly, as the closing of the front door gave notice that the visitor had at last taken his departure; and by way of answer, a bright faced young girl presented herself in the doorway—a girl with shining brown tresses tied with blue ribbon, soft brown eyes, and a fresh, blooming complexion, like the pink blossoms that cluster on the kalnia bushes in May.

"Well, aunt," she said.

"I've been wanting to speak to you for some time, Olive, dear—sit down," purred Mrs. Jennifer. "Your uncle's circumstances are not what they were, as I suppose you are aware?"

"I did not know it," said Olive, slightly changing color.

When people are quite dependent on the bounty and good graces of others, they are apt to be slightly sensitive.

"He has been obliged to expend a good deal of money of late, and I knew you would be perfectly willing to do all you could, if you knew his situation."

"Certainly, aunt!" said Olive, nervously twisting her fingers together.

my dear, that she is fatherless and motherless!"

Mrs. Jennifer rolled up her eyes sentimentally.

"I've always endeavored to act a maternal part toward her, Moses," she sighed.

But not until Olive Martin was safely installed in Mrs. Parkman's work-rooms did Mrs. Jennifer breathe freely.

"She was actually luring Clarence Walbridge away from Elise under my very eyes and nose!" thought the virtuous matron.

"Clarence Walbridge, who is the best part in town. Well, there's no end to the pretensions of these country-bred girls. I wonder what he could possibly have seen in her big eyes, and melancholy, pursed-up mouth! But now Elise will have a fair chance, poor dear!"

And Miss Elise Jennifer was duly posted in what she ought to do and say upon the occasion of Mr. Walbridge's next visit—a washed-out pink and white beauty, with freckled cheeks, flaxen hair, frizzed into the similitude of a yellow cloud, and very red lips, which she was perpetually biting, to preserve their coral bloom!

"I'll do my best, ma," said Elise, "but I never know what to talk about when I am with Mr. Walbridge!"

"Pshaw!" quoth Mrs. Jennifer. "I'm sure Olive Martin could talk fast enough."

"But Cousin Olive knows more than I do," confessed innocent Elise.

Mr. Walbridge came as usual that evening, and was smothered in welcome by Elise Jennifer, in a becoming blue silk dress, with a rose in her yellow flax hair and blue knots of ribbon fluttering wherever a blue knot could possibly be placed.

"Is your cousin at home?" the young man asked, rather unceremoniously, and Miss Elise recoiled her lesson.

"Oh, didn't you know," quoth she, artlessly, "Olive has left us!"

"Lait you!" echoed Clarence Walbridge, more disappointed than he chose to own to himself. "What for?"

Elise lifted her brows, looked at the carpet, and tried to assume an arch expression of countenance.

"Of course I can't be expected to know certainly," she said, "but mamma and I both had our suspicions. In short, I don't know really how to explain, but I've reason to suppose she has gone away to be married."

"To be married!"

"Some faithful cavalier, I believe, who knew her in the days before her poor dear father died—it's all very romantic, and we're so sorry to lose her!"

"What is his name?" bluntness asked Mr. Walbridge.

Elise hesitated—her lesson had not embraced this point, but she knew she must say something, and lipingly answered:

"Mr. John Smith."

At this moment Mrs. Jennifer came in all smiles.

"I am so busy since my niece left us," she said, blantly. "I miss her terribly; but of course it was my duty to oppose no obstacles since Mr. Darcy had been so faithful!"

"Mr. Darcy?"

"Yes, the young gentleman in question."

Elise turned the color of carmine, but she had not presence of mind to extricate herself from the gulf of misrepresentation into which she had fallen, and Mr. Walbridge quietly laid all these things up in his mind.

"Oh, mamma!" cried Elise, when her visitor was gone, "how could you say his name was Darcy, when I had told Mr. Walbridge it was John Smith!"

Mrs. Jennifer looked blank—but hope, that "springs eternal in the human breast," came to her relief, most fortunately.

"Oh, I don't believe he noticed it," said she. "Darcy is a better name than Smith—we'll stick to Darcy for the future, my love!"

And Clarence Walbridge, who had somehow allowed himself to become strangely interested in Miss Martin's blooming face and lovely, pleading eyes, went straight to Mr. Jennifer's law office.

"He, at least, can speak the truth," he thought, "which is more than one can venture to assert of Mrs. Jennifer and the fat Elise."

"Walbridge came to my office this afternoon," said Moses, bluntly, at dinner, as he plunged his carving fork into the juicy depths of a sirloin of beef.

"He asked me where Olive Martin had gone. Do you know, wife, I believe he really is interested in the little thing, and it would be a first rate thing for her, for—"

"What did you tell him?" breathlessly interrupted Mrs. Jennifer, pausing in her occupation of preparing the dressing for a plate of lobster.

"Why, I said she'd gone to learn dressmaking at Mrs. Parkman's, to be sure. What should I tell him?"

"Oh, Moses!" shrieked Mrs. Jennifer. "Oh, papa!" shrieked Elise.

Honest Moses stared helplessly from one to the other.

"What do you both mean?" he demanded. "What have I done!"

SCIENTIFIC AND INDUSTRIAL

By a new device you can blow out the gas.  
Rice is the least nitrogenous of all grains.

The average depth of sand in an African desert is thought to be from thirty to forty feet.

The only existing bird which has a five-toed foot, when in adult life, is said to be the Dorking fowl.

There is a large factory near Chicago, Ill., which does a profitable business in manufacturing useful articles from the waste blood of animals.

Revising an old project, a French company proposes that lightships connected by telegraph be stationed at intervals of 200 miles across the Atlantic.

An English experimenter, E. T. Chaplin, has given an account of hypnotizing a laying hen, and inducing her in that manner to sit on a sitting of eggs until seven of them had hatched out.

Pictures are taken now of patients at various stages of disease, and a comparison of those with photographs of others similarly afflicted discloses phenomena of great interest and value to medical science.

Portland cement will not do for caulking the joints of greenhouse pipes. Alternate layers of oakum and red lead, well rammed in, is the proper stopping, and does not crack or shrink like cement.

Even Christ alludes to the same popular idea of the sun's color and its relation to wet or dry weather, where he says (Matthew xvi., 2, 3): "When it is evening, ye say, it will be clear weather: for the sky is red. And in the morning, we say, we will be bad weather to-day; for the sky is red and lowering."

Light travels at the rate of 213,000 miles a second, a velocity which causes the rays from the moon to reach us in a little less than a second and a quarter.

Salt affects the freezing of ice cream by causing the ice to melt, on account of its own slight affinity for water. The ice in melting rapidly absorbs heat, and renders heat latent, and hence reduces the temperature below that of ice, which simply melts by heat acquired from surrounding objects by conduction or convection of air.

The introduction of electrically driven coal cutters and other mining machinery is making rapid progress in the bituminous mining regions of the Central West.

The whistling buoy is used off the coast to mark dangerous outlying shoals or other obstructions to navigation.

The bell buoy consists of the bottom section of a buoy floating in the water, on which is mounted a framework bearing a bell which, instead of the ordinary tongue and clapper, has a small cannon ball supported on a platform just underneath the bell's mouth.

Ordinary buoys, not of the whistling or bell variety, are made of either iron or wood. Those of iron are hollow, with air-tight compartments, and are of three shapes, called respectively nose, ear and ice buoys.

The wooden or spar buoys are sticks ranging in length from twelve to sixty feet, and painted according to the uses to which they are to be put.

A buoy has many vicissitudes, and is exposed to many dangers. Passing steamers run down the iron buoys and rip them open, or cut off big pieces of spar buoys with their sharp propeller blades.

As the iron buoys are made in compartments, they are seldom sunk by such collisions, but their line of floatation is often so lowered that they have to be replaced.

NAVIGATION'S "DAY MARK"

PLACING DISTINGUISHING AND CARING FOR BUOYS.

Each Buoy is Placed and Marked Under a Careful System—Whistling Buoys and Bell Buoys

All who have visited the approaches to a seaport town have noticed the numerous buoys and marks which are placed there as aids to navigation.

Tugging and jerking at their chains as the tide sucks in around them, or lying quietly upon the placid waters of some sheltered bay, are black buoys and red buoys, buoys with horizontal black and red stripes, buoys with black and white vertical stripes, and ding-donging bell buoys.

The coast of the United States, including the lakes and navigable rivers, is divided into sixteen districts. A naval officer is in charge of each. Under his direction all the buoys in his district are placed.

In all the districts similar buoys mean the same thing, and a buoy that has a particular distinguishing color on the coast of Maine has the same significance if in the Bay of Mobile or off the coast of Oregon.

Not only are the colors and positions of the buoys given on the Coast Survey Charts, but the Lighthouse Board publishes a yearly list, which is distributed gratuitously for the benefit of commerce, in which each of its about five thousand buoys is located and described.

Coming into port from sea, the first buoy that we pass may be a mammoth buoy. I say "may be," because these buoys are only used in special cases, such as to mark the approaches to channels over bars or shoals that lie at a considerable distance from the coast.

The buoys that designate the channel, and which lie on either side of it, are red and black. The red buoys, which all have even numbers, must be left on the starboard or right hand in passing in from sea, while the black buoys, always with odd numbers, must be left on the port hand.

There are, in addition to the buoys already mentioned, two other kinds which are also fog signals, namely, the whistling buoy and the bell buoy.

The whistling buoy is used off the coast to mark dangerous outlying shoals or other obstructions to navigation. It is surmounted by a locomotive whistle, which is made to sound by the rushing through it of air admitted and compressed by the rising and sinking motion of the buoy.

The bell buoy consists of the bottom section of a buoy floating in the water, on which is mounted a framework bearing a bell which, instead of the ordinary tongue and clapper, has a small cannon ball supported on a platform just underneath the bell's mouth.

These buoys are used in harbors and rivers where the water is smoother than in the roadsteads, and where it is not necessary that their sound shall be heard a great distance.

Ordinary buoys, not of the whistling or bell variety, are made of either iron or wood. Those of iron are hollow, with air-tight compartments, and are of three shapes, called respectively nose, ear and ice buoys.

The wooden or spar buoys are sticks ranging in length from twelve to sixty feet, and painted according to the uses to which they are to be put.

As the iron buoys are made in compartments, they are seldom sunk by such collisions, but their line of floatation is often so lowered that they have to be replaced.

Again, despite the fact that the United States laws punish by a fine of one thousand dollars any one who is convicted of unlawfully injuring any work for the improvement of navigation—and this in addition to other penalties provided for by the different States—the very people for whose benefit these buoys are laid often unlawfully make fast their vessels to them, and drag them out of position.

Again, the ice, floating down in masses, parts the mooring chains, or tears the mooring anchor from its hold, and carries the buoy far out to sea, to break upon the horizon of some astonished mariner.

"BEYOND THE ALPS LIES ITALY"

A fresh memorial to vanished youth,  
The sweet girl graduate, with flower face,  
Her eyes so full of trust, her heart of truth,  
Looking o'er all the world to find her place,

Her theme holds weighty words, and thoughts so staid,  
A travesty on life in phrase austere;  
But youthful confidence is unafraid,  
And gladness vibrates in the tones so clear

"Beyond the Alps lies Italy!"  
The joy of triumph, and of proud applause,  
Sweet floral offerings, the music's stir!  
Fair, sunny slope of youth! Oh, let us pause,  
And linger in this childhood's glade with her.

Ere yet she climbs those rugged steeps of life,  
Where womanhood with all its mystery lies.

Remember, ere you go to meet its strife,  
O, maiden innocent, grown strangely wise—  
"Beyond the Alps lies Italy!"

The essay soon will yellow grow with time,  
The years will string their rosary of tears,  
Weary and footsore, we the hills must climb,  
And stumble o'er the stones of cares and fears.

The mists of doubt will all the landscape veil,  
The summit lies so very far away;  
The feet may falter, and the courage fail,  
The stern pale lips will quiver, then, to say:  
"Beyond the Alps lies Italy!"

O, when the hands that helped you up the slope  
Shall loose the clasp we cannot always keep;  
When in the night of pain you upward grope—  
Blinded by tears, with lagging footsteps creep;  
Then let your girlhood's maxim cheer your heart—  
A peal of joy through all life's sad refrain—  
Though here we love and lose, and meet an end part,  
There is a height where pleasure conquers pain—  
"Beyond the Alps lies Italy!"

—Anna H. Patten, in Youth's Companion.

HUMOR OF THE DAY.

"It is better to be tried by fire than to be fired after being tried."—Franklin News.

People who cling to the anchor of hope often have to go down into the mud with it.—Pack.

Man is ninety per cent. water; and, like water, he finds it easier to go down hill than to climb.—Pack.

She—"Do you think Penelope will suit him?" He—"Yes, she'll have to—and feed him and shoe him too."

The man who puts his heart in his work often has very little of it left to bring home to his family.—Pack.

The camel and the swan are just the opposite to each other, the camel always has his back up while the swan's back is always down.—Truth.

A stoic is a man who has so keen an appreciation of the intensity of sensations that he is ashamed to acknowledge his own real feelings.—Pack.

"What would you do if you were me?" "I don't know, I'm sure. I don't believe I'd bear it as well as you do."—Binghamton Leader.