20000000000000000 4 Valley and s Borax Mines.

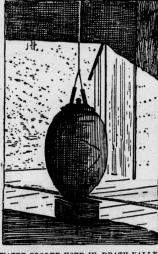
ley is probably the most al feature in California. u the southeast corner cf and is inclosed by ntains on the west and ange on the east. It is les long, and at its narit eight miles wide.

most probably, it was ancient river. The lowis 200 feet below sea-ove this rises Telescope eet high, of the Panaand directely opposite the k, which reaches an altifeet. During the winter are covered with snow.

narkable valley was discov-50 by a party of immigrants, whom lost their lives in the to cross it. The name has ess tragedies. Early in its traditions of gold and silver of wonderful richness within adaries persuaded many advenpersons to undertake the haz experiment of its exploration. imber who have lost their lives desolate field is undoubtedly Pursuing the mirage of rich deof precious metals these adven-us prospectors succumbed at last

o the intolerable heat and the agonies The range of the thermometer is probably greater in Death Valley than elsewhere in the Western Hemisphere. In hinter the temperature is way be-low zero, while in July and August

the thermometer ranges for weeks at degrees above, frequently rising several degrees higher. For weeks at a time the lowest level temperature obexceeded 100 degrees. deadly heat burns every vestige of vegetation. The Spanish bayonet, a



WATER COOLER USED IN DEATH VALLEY plant that flourishes under the most arid conditions, here barely while the mesquite, with its long roots penetrating deep into the earth in search of scanty moisture, just man-A party of enterprising agricultur-

ists once experimented with growing fruit and vegetables in this region, anticipating large profits in the early marketing of their crops. The attempt was a complete failure, the intena withering the plants, notwith standing copious supplies of water and the most skillful cultivation. In the higher altitudes of the Panamints there are numerous valleys with flow ing streams. In these fruits are cultivated, and reach the market two months before the California products mature.

The prevailing winds in Death Valley are from the west. Though originating in the Pacific Ocean and saturated with humidity in traveling the in-termediate distance, they are intercepted by the lofty peaks of four ranges of mountains, which absorb all of their moisture, so that by the time disappeared, and no living thing can survive the intense heat. Even birds, indigenous to the region, die.

dust. At all times the aspect of the valley is superlatively desolate. No valley is superlatively desolate. No spot on earth surpasses it in aridity or ophet-like heat.

During the heated term an without water means death. Meat be-comes putrid in an hour. Eggs are cooked in the blistering sand. Water is only palatable by means of large po-rous earthenware jars, common to all

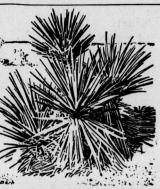
pletely divorced. The carbonic acid unites with the lime, which yields boracic acid, the latter with a small portion of soda and the result is borax in solution. The liquor is then drawn off into tanks, where the borax in crystal-lizing attaches itself to small steel rods and hooks altogether like great sticks of rock candy. The sediment contained in the mixing tanks is com-



hot countries, suspended in drafts and reduced in temperature by means the rapid evaporation of the moisture

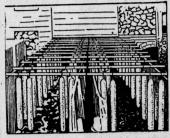
The belief that the borax marshes are the remains of the vast lake which once filled the valley is supported by traces of water-line found 600 feet above, on the mountain sides.

In general appearance all boray marshes are alike. They are located



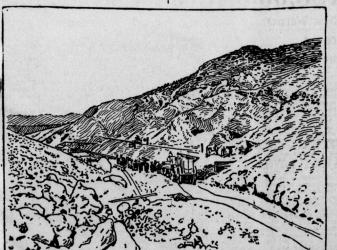
SPANISH BAYONET PLANT, DEATH VALLEY

at the point of greatest depression and from a distance look like deposits of salt or snow. Under the surface is common wet clay or water of varying depths. . . deposits are generally circular in form and appear as though once they were craters. Borax was created by contact of boracic acid in gase ... form, with the lime and soda of the surface. At Teels Marsh, Nevada, borate of lime appears in the form of balls imbedded in clay along with soda, salt, etc., but at Columbus these are found in sandy soil. Sometimes these balls are necomposed, un derlying the soil which is removed and the borate shoveled out. Deposits of crude borate of soda are found in Nevada and in Death Valley, at the Monte Blanco mines. These mines are



THE CRYSTALLIZED BORAX ON THE RODS located in a region the most forbid ding, remote from the railroad and of fering almost unsurmountable difficulties in the reduction and marketing of their product, but their richness and extent, compared to all other fields, soon caused them to be regarded as the principal source of supply for the future production of borax in the United States.

The works employ from 400 to 1600 men. The crude borate of lime is first It is in the months of greatest heat passed through rock breakers and is



BORATE MINES IN DEATH VALLEY.

that the sand storms of Death Valley are most deadly. Then rage with in

then ground to the fineness of flour by means of rolls and purr stones. It is tense fury, obliterating the landscape and dimming the light of the sun, withering the scanty vegetation and covering the trails deep in powdered ton the existing affinities are com-

posed largely of sand and dirt with considerable borax mixed. The de-posit is passed through a filter press, which presses the dirt and allows the borax liquor to pass away to be utilized again. Repeated over and over again, the last remnant of borax is finally secured by this process.

A Very Successful Venture. An abnormally generous woman went to Europe last sy iner, leaving her horses in entire tharge of her coachman. The coachman, of a pracof mind and with his tress's full consent, turned a pretty penny by renting the teams out. Be-for rong she had a letter from him-would she object to his setting up a hearse? There was a great demand for something of the sort, new and smart, in the town, and he knew of such a nice hearse to be had at half-price; if she wouldn't mind his putting her horses to it, his fortune would be her norses to it, his fortune would be made. The a mormally generous wom-an wrote back that she was perfectly willing. A few weeks leter she was rewarded by a letter from the coach-man saying that the hearse, as run by her horses was the greatest suc-cess; "people are just dying to get into it," he added.—New York Sun.

Father's Horrible Discovery.

While trying to save George Denison, an eight-year-old companion, from drowning in the Floyd River at Sioux City, Iowa, George Lewis, aged thir teen, was also dragged down and died with his friend. Denison was bathing in the stream, and was supposedly seized with a cramp. Lewis plunged in after him when he called for help. At first it was not known who the lads were, and the father of Lewis offered to dive for the bodies. He first brough to dive for the bodies. He first brought up Denison, and on diving a second time rose with his own son in his arms. He was nearly crazed with grief when he recognized his child.—Cincinnati

Where the Y. P. S. C. E. Will Meet. The Young People's Society of Chris tian Endeavor opens soon a world's session in London, and will hold its convention in the Alexandra Palace, which resembles the Madison Square Garden, New York City.

The palace is just beyond the out-

skirts of London proper and has a capacity for lodging and boarding 5000 Endeavorers, as well as giving ample room for their meetings. The banquet hall of the palace will be divided off into dormitories, enough of them to hold 1200 young women. This ar-



rangement left 3800 young men to be cared for, but 800 tents have been provided for them, and .ney will occupy these, five to a canvas.

The kitchen of the palace is large

enough to prepare food for 2500 per-sons, who can sit down at one time in the dining hall and be served. All En-deavorers not provided for in the palace will have accommodations secured for them in near-by private houses and It has been settled that all vis-

itors will pay their own expenses. The total number of delegates pected in London is 60,000, of which 8000 come from America. The dele-gates represent a membership of 4,000,-000 Endeavorers, scattered all over the

Easy to Pick the Winner.

They made a wager as to which could give a story the widest circulation in the shortest time.

One of taem had it manifolded on the typewriter and sent it to every newspaper in the fown.

newspaper in the town.

The other merely told it to his wife "in strict confidence."

A UNIVERSAL CONSIDERATION.

Whon the day is dull and busy and the air is till of noise we drawn of prospects fair and far away, ome place where all the sweetness and the blooming never cloys

And the silent hours go drifting day by

day.

But a voice—'tis much like conscience—speaks in most emphatic t ne
And awakens us anew to discontents.

It interrupts the dreaming and bids all our
hopes be flown
With "How about the dollars and the
cents?"

Oh, the king sat sadly musing of the won-drous good he'd do When he somehow got his royal way at last,
And the jester vowed he'd wear a garb
which all the world would view
With deep respect. The motley far he'd
cast.

And the tradesmay said he'd be a man of fine and studious misn, And the scholar said he'd follow chosen bents;
But they ali were set to plodding through
the old famillar scene by "How about the dollars and the

-Washington Star.

HUMOROUS.

Angry Father-How dare you show again? Persistent Suitoryour face again? Persistent I could not leave it at home.

"The undertaker is very jolly this morning." "Yes. Three hundred new doctors were graduated last night."

Stubb-What became of the play, "Down with Titled Peers?" Penn-The playwright has sued for more royalty

Tommy--Pop, what's a martyr Tommy's Pop-A martyr, my son, is a man who lives up to his wife's expectations of him.

"That's the way," cried the forger as sentence of ten years was imposed, "all of us great writers are compelled to suffer for giving full freedom to our

"Alas!" cried the villain as he drew his sword with trembling hands, am undone!" "Then," replied allow me to do you up without delay."

"I'd die for you!" the lover cried, While lines of grief played round his brow. "You needn't mind." the girl replied; "I know too many dead ones now!"

He-After the encouragement you have given me, it is rude to decline my offer. She—Perhaps it is; but I'm sure that my acceptance of your offer would also be rued.

"Why do they keep you here?" asked the prison visitor. "Oh?" replied the man who had burned down his residence to get the insurance, "for home consumption. I suppose.'

Blobbs-Newlywed seemed greatly depressed just after his marriage; but he's now quite his old self again. Slobbs-Yes; he has persuaded wife that it is cheaper to take their meals out.

"I trust," remarked the considerate young man, "that my whistling does not annoy you." "Oh, no," returned the dapper maid. "I'm used to hearing men whistle. I'm the collector for a millinery firm."

Don't say the tramp will never work, But lives upon his stealings; One mighty task he'll never shirk— That's working on our feelings.

The small boy wriggled under the circus tent. "Say, fellows," he chuckled, "I feel like a yacht making the homeward run." "How's that?" inquired his associates. "Going in under full canvas;" and then he disappeared.

"I never tell my boy that I won't take him to the circus if he isn't good," remarked the candid man. "Why not?" "I don't want to take any chances. I'm afraid he'll do something that will keep the whoie family

Mr. Justjoined-What on earth are was reading about cooking by elect tricity, so I hung the chops on the electric bell, and I've been pushing the button for half an hour, but it does not seem to work.

The Ostrich Hunter.

an of the Midgans had his dwelling near our camp, and was occupied specially in hunting, who was named Boni. He dwelt in a small zariba, a few yards in diameter, its roof being the heavens above, while its walls were made of thorns thickly piled up to a family he lived alone with a single camel, which carried a stock of water from Aware, 15 miles way, every two or three weeks, this camel and a tame ostrich forming his whole property. He employed the which he caught when a chick and tamed, to decoy his wild brethren, whose valuable plumes he devoted himself specially to obtaining. His mode of capture was somewhat after this style: In spots visited by these gigantic birds he was accustomed to place himself in

concealment before daylight and let loose his tame ostrich in the jungle. On meeting its wild relatives the latter would join, and when all were feeding in company it would generally bring them to the place where the Midgan lay waiting for his victim. I had not an opportunity of seeing the plan in execution, but Boni himself explained all, at the same time showing us his tame ostrich. Previous to our visit Boni had never beheld a white man in his life, and he looked at us with curiosity, wondering at various trifles we showed him, and marveling at our weapons and the method of using them. -"Sport in Somaliland," by Coun Joseph Polacki.

A Literary Failure.

Mr. Slummer-Your story is not a

plausible one. Talking Forager (anxiously)--D'ye t'ink I'm stuck, mister? I payed l'ete de poet two dollars fer writin' me dat string of talk!—Brooklyn Life.

MACHINE FOR HANDLING EGGS. Interesting Device For Packing Them is Crates.

Egg crates, with their pasteboard partitions for each egg, are usually packed by expert hand-packers, and the device here pictured is intended to facilitate this operation. It consists of a wooden tray to which are attached parallel wooden strips of semicircular section, running in the direction of its length, the whole being covered with cloth. This tra. is placed



FOR PACKING EGG CRATES.

on an iron stand, fitted with wooden ollers, and is adjustable to any The eggs are placed in the tray, which must be rocked occasionally, causing the eggs to dovetail into the corruga-tions in perfect order. When the tray is full it is removed to the case into which the eggs are delivered by tilting the tray and drawing it gently from one end to the other. By this means the eggs are delivered into the case in symmetrical order in such a manier that breakages are reduced to a minimum.

Chinese Dressmakers.
The sewing, as well as dressmaking, s all done by men tailors in China. There are many amusing stories told of them as copyists of the American's way of making up garments. A friend and need of a dozen undergarments. As she came over on shipboard a buton was lost, and an exceedingly clum-sy and ugly one replaced the lost one, which was of pearl. On reaching Shanghai she desired a tailor to copy rom this garment, which was placed n his hands as a model. He brought nack the garments, exquisite creations n lace and tucked muslin, and each of the dozen adorned with a button exactly like the one on the sample garment. Upon having his attention called to the ugly button his reply was, 'Likee Missy," and he was greatly dis-appointed that his efforts to please were not appreciated. He had spent many nours in search for "likee" buttons. and no doubt was greatly disgusted with the unreasonableness of the for-sign lady.-Woman's Home Compan-

Nerves as Electrical Conductors

It has been believed for some time hat nerve sensations are electrical in character. It is known at least that numan perves are electrical conduct ors, and that they conduct differently according to the direction in which the electric current passes along the nerve. If a current is passed along a nerve away from the nerve centre, contraction of the muscle follows. If the current is passed in the opposite firection then there is little or no contraction.

Longest Sentence.
Teacher—"How many of my scholars can remember the longest sentence hey ever read?' Billy-"Pleas . mum. I can."

Teacher—"What! Is there only one?
Well. William, you can tell the rest
of the scholars the longest sentence
you ever read."

Pulls "Insurionment for life."

Billy-"Imprisonment for life."

Remarkable Quartet.

The tallest man in Europe is Oscar Balling, who is only twenty-three years old and measures eight feet two nches. Fraulein See-hen, the second curiosity, is the oldest daughter of a Chinaman, who married a German woman in Lerlin. She is well pro-portioned, and is only an inch shorter



EUROPE'S TALLEST AND SHORTEST PEO-

than Oscar. A ludiero contrast is tenderly nurses a full beard and is forty years old and not quite three feet in height. The fourth member of the troupe is little Willie Wendt, sixteen years old, a Persian, who is two feet eight inches tall. The quartet exhibit together.

THE GREAT DESTROYER.

THE VICE OF INTEMPERANCE.

nat! Rob a Poor Man of His Beer— The Allegation That Alcohol is a Food Which Does No Harm Shown to Be a Fallacy by Scientific Investigators.

What! rob a poor man of his beer And give him good victuals instead? Your heart's very hard, sir, I fear, Or at least you are soft in the head.

What!-rob a poor man of his mug And give him a house of his own, With kitchen and parlor so snug? "Tis enough to draw tears from a stone!

What! rob a poor man of his ale
And prevent him from beating his wife.
From being locked up in a jail,
With penal employment for life?

What! rob a poor man of his beer And keep him from starving his child? It makes one feel dreadfully queer; And I'll thank you to draw it more mild

Professor Atwater Confuted.

Professor Atwater, or those who have spoken for him, have declared that one and one-half to two ounces of alcohol, taken in divided doses during the day are oxidized, and "seem" to do no harm. The subjects of his experiments were adult males, some of whom were accustomed and some not accustomed to drinking some kind of alcoholic beverage. It is further stated that those experimented upon were not under observation, in an experimental way, long enough to determine what might have been the result of imbibing this amount of alcohol for a long time. The fact to which attention should be called is that no definite measures were instituted to determine whether the organism at all suffered in its functions by the taking of these small daily quantities of alcohol. It will not satisfy the earnest investigator to be told that they "seemed" to do no harm, nor need he content himself with this answer. Others have determined that, arriving at definite results.

Dr. Herman Frey, in Sahli's clinic, in Berne, Switzerland, in 1896, undertook to determine the effects of small quantities of alcohol upon muscular work. We cannot, within the limits of this article, give these experiments in detail. Suffice it to say that they were carried out with the atmost care and all apparent sources of error climinated. Alcohol was given in one and one-fourth to two drachms, or error eliminated. Alcohol was given in one and one-fourth to two drachms, or error eliminated. Alcohol was given in one and one-fourth to two drachms, or error eliminated of the individual contractions and the amount of work which the muscular contractions was measured by Mosso's ergograph. As a result of his experiments Dr. Frey found that alcohol in these quantities decrease amounting to heavy fifty per cent. Of many experiments these were only two which did not show this result, and these, the experiments these were only two which did not show this result, and these, the experiments these were only tow of Kraeplin and his co-laborers. Concerning the effects of alcoho

A Study in Beer.

A Study in Beer.

There lies dead in Bellevue Hospital a man whose intemperance killed him at the age of forty-three. For many years before nis death life must have been a burden to nim, for he was forced to carry about 4° younds of flesh, mostly diseased.

It is not said that he was a drunkard, but as for that there are different degrees of drunkenness. There is the man mad with drink, the drivelling idiot inclined to ambling philosophy and incoherent friend-liness, the babbling enthusiast, the insensate inarticulate joker, the dull sleeper. Amend drank prodigious quantities of beer and acquired cirrhosis of the liver. As he lay dying all that his drowned-out intellect could amuse or interest itself with was a calculation of the amount of beer consumed by him during the twenty-ive years that he had driven a beer wagon. This, he said, was seven quarts a day, 2555 yuarts a year, 63,875 quarts for the twenty-ive years. What a vision of bestiality! Nearly 500 pounds of beer-wrought flesh, with a trembling spark of intelligence hidden away among its masses of fat, and at the end, after long confinement in the nospital had reduced this mass to less than 200 pounds, the partially released but still stupefied spirit could only busy itself with the waves of beer under which it had been submerged for a quarter of a century.—

Civi-izing Africa.

Civi izing Africa.

The civilization of Africa.

The civilization of Africa goes on apace.

A British steamer sailed from Hamburg a few days ago with 1000 tons of spirits on board for Lagos and Southern Nigeria. Another steamer, sailing from the same port, carried double that quantity. The spirits consisted of bad gin and worse rum, and the trade is principally in the hands of a few big English and German firms.

An Insidious Foe.

Drunkenness entraps the bread-winner of the household and robs him of his wages, his strength, his character and his emple ment. It robs the wife of the love and protection pledged to her at the altar. It takes from the children the care and affection of a father. It steals from every member shelter, food, clothing and an honorable name.

The Crusade in Brief.

British officers say that the total ab-stainer is the better fighting man.

More deaths are due in England to al-coholism than to diphtheria or typhoid fever.

coholism than to diphtheria or typhoid fever.

There are 740 salocns in the First Ward of Chicago, and in one section there are twenty in one block.

The Sons of Temperance, an English society, has an adult membership of 42,775, a gain for the year of 2309.

Railroad companies in Ohio are forbidden under penalty of \$200 to employ locomotive engineers who are addicted to drin!:ino