

TAKING OXYGEN FROM AIR.

Interesting Scientific Experiments Witnessed by French Savants.

Paris—Consul Brunot, of St. Etienne, writes that a group of savants of the Academie des Sciences, Paris, very recently paid a visit to a factory at Boulogne-sur-Seine to witness the manufacture for industrial purposes of enormous quantities of oxygen and nitrogen, extracted in a liquid state from the atmospheric air.

The consul says: "Georges Claude, the inventor of the interesting process, furnished the explanations. As the liquid oxygen flowed out from the generator it was of a bluish hue, while the nitrogen was colorless.

Several experiments were made for the visitors to prove the importance of having an abundant supply of oxygen at one's disposal; a forge set up in the grounds showed the wonderful effects of the gas. The fire, which had almost died out, was immediately rendered incandescent by a current of hydroxide from the blowpipe. A bar of iron was brought to a red heat and then melted like lead. Two pieces of iron were welded in a few minutes by the aid of a powerful flame from the blowpipe. Much costly and tedious riveting will be no longer necessary; iron will be welded against iron, copper against copper, etc.

WILL SPEND \$60,000,000.

Railroad Work in Mexico Will Keep Thousands Employed for Years.

Mexico City.—A general survey of the cost of railway extensions now under construction, changing the gauge on narrow gauge roads, terminals at the port of Vera Cruz, etc., show approximate expenditures of more than \$60,000,000. There will be abundant employment for thousands of men for several years.

The railways entering this city are to have a union station which, with the new terminals, will cost probably \$10,000,000. This improvement has been long contemplated.

Shortly after the opening of the Tehuantepec railway for through traffic from ocean to ocean the line will be made double track, making it the only double track road in the republic.

The new harbors at Coahuacoas on the Gulf of Mexico and Salina Cruz on the Pacific will shorten the time for freight shipments to New York and San Francisco two to three days and shorten the time between Europe and the west coast considerably.

JOY SHIPS ON EXHIBITION.

Models of Transports Are Shown to the Public at the War Department.

Washington.—Under the direction of Quartermaster General Humphrey of the army, models have been prepared of the United States transport Sherman. They are attracting much attention at the war department.

The models are about 20 feet long and show not only the exterior of the ship, but also the interior. One model represents the transport cut in halves and shows the relative positions of the quarters for soldiers, the passengers' rooms, coal bunkers, freight compartments and machinery rooms.

With great detail the interior has been worked out in such manner that nothing is left to the imagination. Even the beds for the men are reproduced on a small scale and the freight is represented by miniature barrels and boxes.

Actual coal is used in the bunkers and the machinery and guns are reproduced with such fidelity that they can be moved and adjusted in such manner that their position may seem more realistic.

SHORT DAYS ON THE FARM

Ten Hours to Be the Limit of Labor in a New Jersey District.

Swedesboro, N. J.—Again the South Jersey farmer is confronted with the help problem. Negro hands are arriving daily from the south, but the demand is away ahead of the supply. It is next to an impossibility to get good white farm laborers and many families do not care to employ the southern negroes.

Several farmers near Bridgeport have decided to make it a rule to work their men only ten hours a day. Usually the farmer works from sunrise to sunset, and it is believed by adopting the new rule just as much work can be accomplished, as the men will feel more like laboring.

For years George Sharp, one of the leading farmers of this section, has made it a rule to quit work at six o'clock, although he had his men in the field early in the morning. He never has any trouble in getting good employes.

Cattle Ablaze.

A few days ago two cowboys on the Mutator ranch, near Chanoin, Tex., were dipping cattle in oil. They found one unbranded steer, and after dipping it, branded it. The heat of the branding iron set fire to the hair of the animal, which was soaked with oil, and it immediately dashed into a bunch of steers which had been dipped in the same fluid a few minutes before, setting them afire, from which 46 died.

HOLD FINAL REUNION

THE PENNSYLVANIA VETERANS MEET FOR THE LAST TIME.

Twenty-Six Survivors of the Ninetieth Regiment All That Are Left of Twelve Hundred Men.

Philadelphia.—The survivors of the Ninetieth regiment, Pennsylvania volunteers, have held their last muster. Only 26 men of the rapidly dwindling regiment of 1,000 men were able to attend the reunion here Saturday night and heard Col. Jacob M. Davis announce that it was their last supper call.

It is the first veterans' association to yield to the ravages of years in this state. The cafe in which the veterans gathered Saturday night presented a pathetic scene. That the absence of dead comrades might be felt less keenly, the 26 veterans brought their wives, their children, and some of them their grandchildren to the banquet. Thus, there were 80 persons present in addition to the 26 survivors, and they lent a spirit of cheerfulness to the occasion which otherwise would have been filled with nothing but gloom.

When Col. Davis, the patriarchal leader of the survivors, arose to make the speech tears filled his eyes.

"Boys," he said, "we're getting too old, and those of us that are able to get around are so scattered we can't come together any more."

He paused, and his eyes roamed over the faces of the veterans at the table. Then he looked at the opposite wall.

"This is our last banquet. We have got to bid one another good-by."

The listening veterans placed their arms over the shoulders of their comrades as Col. Davis recounted the deeds of the "Ninetieth."

"For more than three months we traveled from one point to another," he said, "and finally faced the enemy at Front Royal. Then we fought at Cedar Mountain, Thoroughfare Gap, Bull Run, Chantilly, Antietam, South Mountain, Gettysburg."

Then the colonel's voice faltered, for it was at Gettysburg that one-third of his men were lost. "—And Mine Run—" added the veteran, and again he had to pause. "—Mine Run—where our regiment was annihilated."

It was true. Of the original 1,200 men who had enlisted in the Ninetieth, they had been so scattered by death, disease and the fortunes of war that only 110 faced the enemy at Mine Run. Of that number either were killed or taken prisoners. The remainder were transferred to another regiment, and the Ninetieth existed in name only.

Capt. G. W. Devine was chairman of the banquet committee which had received post cards from the veterans who could not attend.

"It will be impossible for me to attend, as I cannot walk on account of rheumatism," wrote one.

"March is a hard month for an old man, and I can't venture out at night," came from another.

OVERCOAT WITH A RECORD

Worn for Fifty-Two Years by Pennsylvania Man and Exchanged for New One.

York, Pa.—Henry Wambaugh, of Shrewsbury, 82 years old, has just exhibited an overcoat which he has worn for 52 years. The coat is made of baver and cost \$18 when he bought it, in October, 1854.

Wambaugh was the star witness in a line-fence case which has been in contention for many years. It finally found its way into court, and as Wambaugh built the fence, he was the star witness.

After testifying he asked to be taken to see Lehmayr. The latter was not in his place of business, and Wambaugh was taken to the residence.

To the merchant he said: "I purchased this coat from you 52 years ago. I came to York during one cold day in October, 1854. I bought the coat, and I have been wearing it every season since I never owned any other."

Lehmayr ordered his clerk to take charge of the old garment, which is in an excellent state of preservation, and present the old man with a new one of the best material.

Before leaving for his home Wambaugh appeared before James J. Logan, a notary, and subscribed to an affidavit that he bought the coat in October, 1854, that he has worn it continuously ever since, and that he has owned no other coat during that extended period.

Forestry in Kansas.

Approximately 1,000,000 young trees will be distributed to the people living on the prairies of western Kansas free of charge this year. H. S. Beaubien, state forestry commissioner, says he is afraid that even this number will not be sufficient to supply the demand. The forestry stations at Dodge City and Ogallah have the young trees almost ready for shipment and will begin sending them out to those who have made application within a few days.

World's Cocoa Crop.

The world's cocoa crop amounted to 146,852 tons in 1904, or 16 per cent. over that of 1903, according to figures just published by the German Cocoa Trade Journal. The United States led the world in cocoa consumption, using 33,150 tons, Germany following with 27,101 tons, France with 21,789, the United Kingdom with 20,552 and Netherlands with 21,124 tons. Switzerland, using 6,839 tons, leads the remaining countries. Italy consumed only 479 tons in 1904.

Pledge to Monarch.

A Buda-Pesth newspaper states that the officers of the Hungarian army will shortly be requested to sign a pledge to remain true to the monarch, whatever course events may take.

Britain's Population.

Latest census reports give the British empire approximately 400,000,000 people, only 54,000,000 of whom are white.

OUR TRADE WITH MEXICO.

Great Increase in Traffic During the Last Ten Years Is Shown.

Washington.—A bulletin issued by the department of commerce and labor shows that the trade of the United States with Mexico in the next year 1905 aggregated in value \$22,000,000, as compared with \$31,000,000 in 1895 and \$18,000,000 in 1885. Of Mexico's total imports of merchandise 53 per cent. is drawn from the United States and of her total exports 71 per cent. is sent to the United States.

No other country except Canada draws as large a percentage of its imports from the United States as does Mexico, and no other country except Cuba sends as large a percentage of its exports to the United States as does Mexico. Estimates made by American consular representatives and others and by persons in the United States familiar with the subject, the bulletin says, indicate that fully a billion dollars of capital from this country is now invested in Mexico, Canada and Cuba, of which about one-half is in Mexico.

Imports from Mexico of sisal grass in 1905 amounted to nearly \$15,000,000 and of copper in various shapes to over \$15,000,000. The copper is brought here for smelting and refining processes and the extraction of the precious metals which it contains.

Iron and steel manufactures exported to Mexico in 1905 aggregated over \$12,000,000, out of a total of \$45,000,000 of exports.

OSCAR'S PET DECORATION.

Swedish King Values Medal Won by Him for Stopping Dangerous Runaway.

Stockholm.—When King Oscar of Sweden sat for his official portrait he insisted on being painted as a naval officer and called the artist's attention to a little cross on a tricolored ribbon which hung among many other orders on his uniform. The artist was careful to give this little medal prominence.

In 1867, five years before he came to the throne, the then crown prince was walking alone beside the sea on a road which ended abruptly at a steep incline. Suddenly he heard cries of terror, and looking around saw two frightened horses galloping toward the cliffs. The crown prince sprang at the reins. For some yards he was dragged toward seemingly inevitable death, then he managed to bring the horses to a standstill.

The crowd that followed cheered the brave deed, but the modest man evaded it and continued his walk. For some time the identity of the rescuer remained a mystery, but finally it was discovered and to the crown prince was awarded a medal for bravery, which is now the proudest decoration he wears as king.

UMBRELLA SAVES HIS LIFE.

Old Style Rain Chute Acts as Parachute for Man in Fall from Palisades.

New York.—Had he carried a slender silk umbrella with a steel rod and cobweb springs, Salvador Blanco doubtless would have been killed when he fell off the Palisades at Cliffside, the other day.

As it was, having adhered all his life to the common or garden "umbrella" of his daddies, with a stout woaden stick and substantial radii, he had the satisfaction of seeing it operate as an emergency parachute, and it was lightly as this led down that he floated toward the ground a hundred feet below the brow of the cliff.

The sturdy frame supported him—and Blanco's no bantam—until he was five or six yards from the bottom. When it struck for a new woad scale and Blanco bumped the bumps.

But the home stretch of his descent wasn't long enough for dangerous injury, and when at last he became stationary once more he suffered from nothing worse than cuts and bruises.

LEAST DEADLY WOUNDS.

Startling Statement Made by Surgeon in Russo-Japanese War.

Berlin.—Dr. Schaefer, of Berlin, speaking before the German Surgical Society on his experiences during the Russo-Japanese war, said that after the battle of Mukden he examined more than 7,000 wounded Russians. The percentage of those dying from rifle wounds was the smallest, and a surprisingly large proportion of the wounded were fit in a short time for active service.

Three months after the battle of Mukden half the wounded of the army corps to which Dr. Schaefer was attached were cured. The percentage rose in some regiments to 70 per cent.

The results were so surprising that a Russian general of division tried to forbid further investigations, saying the world would laugh at the fact that the Japanese had beaten the Russians while the former were using such miserable rifles.

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Britain's Population.

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PRESERVING POLES.

MEANS OF SEASONING TELEGRAPH WIRE SUPPORTS.

Economy in the Use of a Product Which Is in Great Demand and Rapidly Running Out.

With the life of telephone and telegraph poles at its present limit, the 300,000 miles of existing lines, requiring 32,000,000 poles, must be renewed approximately four times before trees suitable to take their place can grow. A pole lasts in service about 12 years, on the average, but is made from a tree about 60 years old. In other words, to maintain a continuous supply five times as many trees must be growing in the forest as there are poles in use. The severity of this drain upon forest resources by the telephone and telegraph companies is obvious enough. Just as in the case of railroad ties, the question of pole supply has thrust itself into prominence. To lengthen the life of poles, and in this way to moderate demand and conserve future supplies, has become an important matter, affecting the public as well as private interests.

Since 1902 the forest service has been making a thorough study of the preservation treatment of poles and of the value of the seasoning in relation to treatment. In this work its first object has been, as in its studies of cross-ties and construction timbers, to make the timber last as long as possible, so as to check the annual demand for renewal and thus lessen so far as possible the drain upon the forest. Co-operating with telephone and telegraph companies, railroads, lumber companies, and individuals, it has urged forward a series of experiments covering all phases of the problem, from the question of the best season for cutting, through subsequent stages of handling, to the final setting of the poles. Some of the most important results obtained deal with the seasoning process.

Seasoning was studied in the first place to determine the rate at which poles become air dry, that is, lose as much moisture as they will part with through evaporation in the open air. The time of cutting was also carefully considered. Experiment proved that poles cut in winter dry more regularly than those cut at other seasons, and also show a greater loss in moisture at the end of six months' seasoning. The advantages of winter cutting are, therefore, even drying, with a minimum liability to check, and light weight—an obvious advantage for shipment by freight. Spring or summer cutting secures a more rapid loss of moisture at first, owing to the temperature, but only for three or four months. At the end of from six to eight months spring and summer cut poles are found to have dried only three-quarters as much as winter-cut poles. Spring and summer cutting, however, would result in saving in freight and increased durability if the poles are to be shipped and used within three or four months after cutting.

The second point to be determined was the degree of shrinkage in circumference during air seasoning. This was found to be very slight, averaging but little over 0.5 per cent. at the butt and 0.6 per cent. at the top. The rapid shrinkage of wood does not begin until the percentage of moisture is reduced lower than is possible in the case of telephone and telegraph poles in out-of-door seasoning.

The effect of soaking in water upon the rate of seasoning was the third of the problems dealt with. The experiments substantiate the common opinion that poles soaked from two to four weeks subsequently season at a materially increased rate.

Finally, it was found that checking in the course of seasoning is no serious matter when poles have been carefully cut. Rapid-grown timber, however, when so carelessly cut as to leave jagged ends, was found to split badly at the butt and at the top. This is doubtless merely the widening of cracks started when the stick partially broke off instead of being cut clear through.

Just how much thorough seasoning will add to the life of poles can not be told until the actual tests are made in service. The poles upon which the tests are being made have been set in a line where their behavior can be compared with that of unseasoned poles, and will be closely watched. Upon a large number of the seasoned poles a test was also made to show the value of various preservative treatments, which is expected to throw additional light on the subject of durability.

Cook's Perquisite.

E. Z. Gross, the mayor of Harrisburg, was condemning the fees and unfair perquisites which swell unduly the salaries of many unimportant officeholders.

"Fees and perquisites," he said, "tend to cause unjust dealings. Even in the kitchen this is so."

"A butcher told me the other day that a young woman, the cook in a prominent family hereabouts, came into his shop and said:

"Give me a fine large roast o' beef with plenty o' bones."

"Plenty of bones?" said the butcher in amazement.

"Yes," answered the young woman. "Bones is my perquisite."—Milwaukee Sentinel.

Musical.

"Yes, Harker married a physical culturist girl."

"Did she?" is she a better housekeeper than other girls?"

"I should say so. She can take the toughest steak and pound on it until it is as tender as quail."—Chicago Tribune.

BUYING COWS AT "YARDS"

Haggling Over "Milkers" in an Odd Corner of the Chicago Market.

Chicago residents accustomed to find the milk for their favorite breakfast food nicely bottled at their back doors each day know almost nothing of the market in which are sold each year several hundred cows. The animals which graze on the outlying commons in summer and pass their winters in the little storm sheds of the Bohemian, Polish and Irish settlements, says the Chicago Daily News are nearly all bought and sold in a little out-of-the-way corner at the stock yards.

A character which once seen is not soon to be forgotten is the frequently appearing odd woman who comes to buy a cow to assist in the family support. One minute she pleads with pathetic accents, the next she argues vehemently and again she lifts her voice to an Italian opera pitch and scolds shrilly, mercifully scolding the seller and her meek husband, who only demonstrates his presence by an occasional wheedling word put in when his wife is angrier. Once in awhile, however, she allows him to haggie over the price while she looks on with an expression of anxiety, but she only returns to the charge again with renewed energy. Argument between the dealers and fun for the bystanders flies fast and furious.

"Thirty dollars and a big bargain at that," says the seller, with the air of one uttering an unalterable verdict.

"Ah, sure now, and that's a deal too much for a poor man to pay. Can't you make it twenty-four?" asks the old man, wheedling.

Before the dealer can speak the woman breaks in with: "Arrah now, it's yourn the fool and it's meeself will buy the cow, inlaid an' I will. Then it's robbery you would be doing to take the last cent from a poor woman now."

After bargaining with a dealer or two more the couple buy a cow for \$23. As the woman reluctantly parts with her hard-earned dime, which evidently look as big as cartwheels to her, and the husband is handed the rope to lead the cow away, her face takes on a look of supreme contentment, and the three move away, the man leading the cow, and the old woman, her skirts tucked up, trailing along behind.

QUEER PUZZLE IN NUMBERS.

One Combination That Can Be Multiplied with But Little Trouble.

Persons who like to puzzle their noddies over queer combinations of figures will find many things to interest them in the number 142,857, says the Brooklyn Eagle. If you multiply it by 2 or 3 or 4 or 5 or 6 or 7 each answer will contain the same digits merely transposed. To multiply it by 2 simply transposes the first two figures to the last two places, thus: 285,714, while to multiply it by 3 you transpose only the first figure to the last place, thus: 428,571. To multiply it by 4 you transpose the last two figures to the first two places, thus: 571,428, while to multiply it by 5 you transpose only the last figure to the first place, thus: 714,285. To multiply it by 6 you merely "shift the end," that is to say, you transpose the two sets of triples, placing the first three figures in the last three places, thus: 857,142. If you multiply it by 7 you get something entirely new, the answer containing not one of the figures in the original number. Indeed, it will contain only one digit. Try it and see how near to 1,000,000 you can make it come.

If you wish to pursue the exercise you can multiply the original 142,857 by 9 merely by deducting 1 from the final 7 and placing it before the initial 1, the result being 1,142,856. And if you don't mind a little fardelching you can multiply it by 9 by nipping the 4 out of the second place, changing it to 1 and 5 (which make 4) and placing them at the end, thus: 1,285,713.

Another little trick you can play with this original number is to add all the component digits together and make 27, thus 1 plus 4 plus 2 plus 8 plus 5 plus 7 equals 27. The 2 and the 7 of this sum added together equal 9. Now split the original number in the middle and add the two halves together and each column foots 9, thus: 142 plus 857 equals 999. Then, if you feel inclined, you can add those three 9's together and get your 27 again, which is the sum of all the digits in each of the products of all the multiplications you have made, excepting the one, which is 999,999.

There now, perhaps this thing has gone far enough to prove that the number 142,857 is a very interesting one, and if you are not by this time in a hopeless mental muddle it isn't my fault.

Figurative.

"I'm up a tree," admitted the boiling senator, "our my back is to the wall, and I'll die in the last ditch, going down with flags flying, and from the mountain top of democracy, hurling defiance at the foe, soar on the wings of triumph, regardless of the party lash that barks at my heels."

He looked as though he meant it, too.—Philadelphia Ledger.

Interesting Conversation.

Church—I saw McGruffy, the insurance president, talking to himself yesterday.

Goath—Bad sign when you see a man talking to himself.

Yes, I guess he was talking to himself about raising his salary.—Yokers Statesman.

Corn as Steamer's Fuel.

The London steamer Cosalund, when in mid-Pacific on her way to Yokohama from Portland, Ore., ran short of coal, and the captain ordered 5,000 bags of wheat to be thrown into the furnace to carry the vessel into port.

The Right Kind.

Black—Are there any valuable heirlooms in your family?

White—Yes. Two grandmothers and a granddaddy. They're all rich.—Detroit Free Press.

HOW TIGERS KILL PREY.

Sneaking Animals Always Make Their Attack Upon Flank of Victim.

I have taken considerable trouble to find out how tigers kill large game, writes an assistant controller of forests at Perah in the London Field. Some time ago I was asked to come and see a full grown bullock that had been killed by a tiger. On examining it I found the animal had its neck broken and there were claw marks on the nose and shoulder, but nowhere else. There was no doubt that the tiger had jumped at the bull and landed on the shoulder and when the bull turned his head to gore the tiger he must have put his claw out and with a sudden jerk broken the neck.

On another occasion I went to see a young buffalo which had been killed by a tiger and found the same thing had happened. There were similar marks on the nose and also on the near shoulder, which clearly indicated that this animal had been killed in the same way. Malays who have actually seen a tiger killing a buffalo told me they saw the same thing happen, also that in dragging off a heavy carcass such as buffalo or bull he gets most of the weight across his shoulder.

This must be fairly correct, as I have often followed a kill, and the marks left indicated that only a portion of the animal was trailing along the ground. I have known a full grown bullock which ten men could not move dragged for two miles by a tiger in heavy jungle, where roots of trees and stumps had to be gone through. In no case have I seen the pug marks facing the wrong way except when stopping to feed, which proves he must carry a portion of the animal over his shoulder.

The old idea of a tiger killing large game by a blow from his paw is nonsense, besides in this country a tiger never faces his prey but attacks him on the flank unless charged. Another curious fact that has been very like a fairy tale is that a tiger does not seem to mind a small lamp being tied over a kill about ten feet high, but will come and feed. I have known three occasions when this has been tried, and each time a tiger has come to feed upon the carcass.

QUEER SORT OF COMFORT

Suffering Woman Soothed by Being Well-Companioned in Misfortune.

The post-door neighbor had run in to "pass on" the latest book purchased by the book club in the little village. It happened to be Trenchard's "My Own Story," related Young's Companion.

"Did you enjoy it?" her friend asked, flipping into the pages in the absorbed fashion of the born book-lover.

"Enjoy it? I should think I did!" was the enthusiastic response. "I don't know when anything has comforted me so."

The bookwork looked up in amazement. "Comforted you?" she asked.

"Yes," the neighbor nodded. "I mean it. You know the old Miss Carter always had upon me how she leaves me as lumpy as a rat if I talk with her only 15 minutes." Oh, I know of course, that it's my fault. I go so provoked because I can't think of anything to say that will not seem absolutely tame. In contrast with her cleverness, she'll wear myself out whenever she talks. Well, that book says that Mr. Longfellow nearly always had a headache after a conversation with Dr. Holmes. Think of it! Mr. Longfellow! Wasn't that comforting?"

Doubtless there are many who will appreciate the sentiment, for they are few and fortunate who have not at some time experienced either the torture of being smitten with dumbness in the presence of the people to whom they would particularly like to appear brilliant, or the exhaustion consequent upon his effort to "keep up" with a witty talker.

A sense of humor, that finest of panaceas, certainly helps, but perhaps, after all, the largest solace to be extracted from the matter is that of being well-companioned in misfortune; even Mr. Longfellow had his head aches!

Navy-Yard Waste.

One of the worst sins of omission of the navy department is the wasteful way in which good ships are allowed to lie idle at navy yards and rot or go to pieces, when with prompt repairs, made in a businesslike way, they could be made to do good service for years. A ship that a private owner would repair in a month the navy department will sometimes permit to lie at the navy yard for several years, the prey of all sorts of patworms. Vast sums of money are wasted in this way. Vessels that would be of the greatest value in training the naval militia are allowed to lie idle and deteriorate at navy yards until finally they go to the junk-heap because they become too expensive to repair.—N. O. Playmate.

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