

Subscription rates table with columns for One Year, Six Months, Four Months, and Two Months.

Subscribers are requested to observe the date following the name on the labels of their papers.

Grover Cleveland's June 25 means that Grover is paid up to June 28, 1895.

A shortage of billions of feet of pine lumber is predicted from the great Northwestern territory.

Lightning does strike twice in the same place, the New York Mail and Express maintains, and a Honesdale, (Penn.) farmer who was stunned twice during one storm in his barn one day last week lives to certify that an old belief to the contrary is erroneous.

One after another, notes the Chicago Herald, the theological seminaries of this country are opening their doors for the admission of women, and especially for such as would fit themselves for labor in the mission field.

Colonel Thornton W. Washington, of Washington, D. C., is dead. His death removes one of the direct lineal descendants of General George Washington.

A report on the uncultivated bast fibers of the United States by Charles Richard Dodge, special agent in charge of fiber investigations, has just been issued from the Department of Agriculture.

The Republican Senators whose terms will expire in March next are: Joseph M. Carey, Wyoming; William Chandler, New Hampshire; S. M. Culom, Illinois; N. F. Dixon, Rhode Island; J. N. Dolph, Oregon; William P. Frye, Maine; A. Higgins, Delaware; G. F. Hoar, Massachusetts; C. F. Manderson, Nebraska; J. McMillan, Michigan; R. F. Pettigrew, South Dakota; T. C. Power, Montana; G. S. Shoup, Idaho; W. D. Washburn, Minnesota; J. F. Wilson, Iowa; and E. O. Wolcott, Colorado.

THE CLOSING CENTURY.

As one who, roused from sleep, hears far away The closing strokes of some cathedral bell...

Is this the deepening dusk of years, the fell And solemn midnight, or the morning gray? We stir, then sleep again—a little sleep!

—Henry J. Stockard, in the Century.

LOST AND FOUND.

MRS. VAN ALTINE was sauntering leisurely down one of the boulevards in Paris. It was a lovely spring morning; the air was crisp and invigorating—just the kind of a day for a stroll, and so the American woman had disdained her fashionable equipage.

She had walked all the way from her neat and artistic temporary abiding place in the American colony to the shopping district, had purchased sundry trifles and had looked at thousands of articles she had not bought; had fascinated a number of clerks by her dash and brilliancy until they were ready to display for her special benefit the wares of the world in feminine odds and ends, and now she was making her way homeward, care free, and happily conscious that many covert glances were cast at her stylish figure.

At sixteen she was a charming girl; at twenty-six a beautiful wife and hostess; at, well, say thirty—an irresistible widow, perfectly satisfied to saunter all by herself along what remained of life's floral pathway. With a more than comfortable competence, she regarded the future with complacency and the past with resignation. Not that anything very tragic was interwoven among the yesterdays. Existence had flowed smoothly enough—a broken engagement, a heart wring for a time, a trip abroad, a wealthy suitor, a fashionable wedding, a pleasing honeymoon, a series of social triumphs, the demise of her better half, a brief period for mourning, and the comfortable present.

She was childless, but she had many friends. It is true that sometimes something like a pang came to her when her mind reverted to childhood, and she told herself that possibly a little one would not be at all in the way, but, on the contrary, might give sweet solace to the few lonely moments which came to her, generally speaking, did not know what loneliness was. As she walked along with superb movement, she observed two pretty girls in charge of a nurse. The children were playing on the grass beneath the shade trees with which the boulevard was lined, while the nurse, who had the expressionless features of a peasant girl, was seated on a bench knitting. Mrs. Van Altine stopped impulsively.

"Oh, you darling," she said, and thereupon in her own peculiarly graceful way began to question the children and coo over them just as if she knew all about the language of childhood. Nearby on another bench was a little boy dressed in sailor's attire, with the word "captain" on his cap. He looked forlorn and disturbed, for his mouth quivered and there were tears in his big, blue eyes.

"What's the matter, my little man?" continued Mrs. Van Altine, in the language of the country. He only stared at her and rubbed one of his eyes with his dirty fist. She placed her hand on his golden curls in a caressing manner.

"Why don't you play with the other children?" she continued.

"For answer he rubbed his other eye with another dirty fist.

"There, now, sailors don't cry," resumed Mrs. Van Altine, as she wiped the grime from his face with a lace handkerchief.

"They go to battle and fight and are brave. Are you my brave little captain?"

"I don't understand," said the boy in English, plunging both fists into his eyes.

"What! you speak English? You are an American boy?"

"Yes'm."

"And are these your sisters?"

"No'm. I shall never see my papa again."

"Nonsense! of course you will. Why, we'll go and find him now."

"Will you? Do you know my papa?"

"I can't say that I do. There are so many Steeles in the world. Is your papa slender, and does he wear a little mustache?"

"No; my papa's big and has a beard."

"Then I guess I don't know him. How long have you been waiting here?"

"Oh, hours!"

"Well, you are my brave little captain, after all. I'll buy you some bon-bons."

"Will you?" With great show of interest.

"And a candy cane?"

"Yes."

"And a tin soldier I saw?"

"Yes."

"And I saw an elephant I want and two toy lions and—"

"My dear child, you evidently want to start a zoo of your own."

"What is that?"

"Oh, a menagerie."

"I want to a menagerie with my papa here yesterday. We saw them feed the lions."

"Where are you stopping here, my child?"

"I don't know. A big place. Will you take me there?"

"I will, if I can find it from your indefinite description."

"What's 'indefinite' mean?"

"Never mind that now. Are you stopping at a hotel?"

"I guess so."

"Would you remember the name of the hotel?"

"No."

Mrs. Van Altine repeated a number of names.

"I don't know," he said.

"Well, she remarked with a little sigh, 'I suppose we had better call a carriage.'"

"That'll be fine," he said. "I've got a velocipede home."

"Have you? Well, just go and wave your hand at that man with the carriage. Remember you are my gallant little escort, and you must be very polite."

"All right."

In a few moments they were comfortably seated in the carriage.

"How do you like this?" she asked. "It's great."

"Where to, madam?" interrupted the coachman.

"Yes, where to? That's the question," ruminated Mrs. Van Altine.

"Where shall we go, non capitaine?"

"Get the tin soldier," said the boy.

"Very well. That will give me time to think. Drive to a toy shop."

As they dashed down the boulevard Mrs. Van Altine drew the child nearer to her.

"You don't feel lost any more, my brave captain?" she asked.

"Not so much so, thank you."

"And if we don't find your papa can I have you?"

"The boy's lips quivered.

"Oh, I want my papa."

"Even if I should buy you an elephant and—a real pony to ride in the park?"

The boy hesitated. He was evidently sorely tempted. The real pony weighed against his papa was a perplexing problem, but finally he said stoutly:

"I want my papa."

"And you shall have him," said Mrs. Van Altine.

"But I want you, too."

"I'm afraid you can't always have me."

They drew up in front of a toy shop and Mrs. Van Altine and her charge entered. They purchased an elephant, a tin soldier dressed in French uniform, a candy cane, and the young man would have ordered half the store if Mrs. Van Altine had not prevented it.

"Where shall I send these, madam?" asked the clerk.

"Where? I don't know. We'll take them. Bobby, carry this elephant."

AT WORK UNDER WATER.

PRESSURE MEN HAVE TO BEAR IN DIGGING TUNNELS.

Peculiar Sensations Experienced—The Greatest Danger Lies in Coming Out into the Open Air.

LABORING on the firm earth with "all out of doors" to breathe, perspiring and, maybe, grumbling at one's hard luck, a person seldom, if ever, stops to think that men work day after day deep down in the water, or the mud, with none but artificial light to guide their movements, and only the air that is pumped to them to breathe.

People who work in the open air would have only to work for a short time in a diver's suit, a caisson, or an airlock, getting a taste of what it is like and how it feels, to be cured forever of grumbling at their lot and to thank their lucky stars that it has been ordained that they work on top of the earth.

The work of a diver, his sensations while under the water, and his experiences have often been written about, but those of the airlock and caisson worker have not. While he does not face the danger of fouling pipes and lines, as does the diver, he stays down longer, gets warmer, and his great danger lies in the stagnation of blood and paralysis, resulting from the change of atmosphere.

Mr. R. C. Rapier, of East Cambridge, is an airlock worker, and talks most interestingly. His work was mainly in the airlocks used in building the great Hudson River tunnel. To a Boston Herald reporter he talked of some of the sensations, dangers and experiences.

He said that, while a man working on the surface of the earth bears up an atmospheric pressure of fifteen pounds to the inch, men in the locks bear a pressure of from fifteen to fifty pounds of compressed air, according to the depth. The heaviest pressure ever worked under was borne by five divers on the Swedish coast—sixty-five pounds. Four of these died five minutes after coming out.

While, as a general thing, the diver stands not nearly that amount of pressure, and seldom stays down more than two hours, the men in the Hudson River tunnel stood a pressure of from forty-five to forty-six and one-half pounds, and worked on four-hour shifts. Some men stayed down twenty hours at a stretch, but did not work all the time, and Superintendent Huskins stayed down once twenty-four hours.

The sensations experienced are peculiar. When a man first steps in there is a tingling in the ears and a pain in the head, and when he talks it is apparently through the nose. This is caused by the pressure, and the remedy is to hold the nose, close the mouth and blow against the ears. This relieves the pain and stops the sensation. When the pressure is all on the worker feels all right and experiences no discomfort. Then there is a sort of exhilaration, and a man does more work in the lock than he could outside.

Another peculiar thing about the action of the pressure is that a man may have liquor enough aboard when outside to just make him feel jolly, but when he steps into the lock he is drunk as a loon.

The danger lies in coming out of the pressure into the open air. It is then that a man is apt to suffer from stagnation of the blood and paralysis caused by the change of atmosphere. Besides this a man may be attacked in the head or stomach with severe pains. Three out of five cases where the head and stomach are attacked result fatally.

Another severe malady resulting from the change is what is called the "bends." This is the air getting in between the flesh and the bone. It is extremely painful, and so severe that a quart of whisky administered in half an hour would not intoxicate the patient. The stagnation and paralysis are the worst dangers, and do the work quickly. Many men have been keeled over by these causes, and not a few die. Old timers at the business sometimes get caught. Mr. Rapier himself was twice attacked. The remedy for this paralysis is a quick return to the airlock.

The effect of the pressure varies on animals, as is shown by the mules used in the Hudson River tunnel. Some of these beasts are kept at work down below for a year, and on being brought up are worth more than when they were taken down. Others that had only been in the works four months had to be killed.

The men, as a general thing, do not remain a great many years at the business, and a man should never work at it after he is forty years of age.

Cutting a hole and building a tunnel through water is an extremely difficult thing, and by many was thought to be impossible. Still, it was done in the case of the Hudson River tunnel, and the method, as told by Mr. Rapier, is very interesting.

The work on the tunnel had progressed until a body of water was struck. How to tunnel through this hole of water was a puzzling question. It was done this way: A so-called balloon was constructed by making a netting of wire rope and covering this netting with canvas. The interior of the balloon was then filled with lime clay and salt hay. When filled, the balloon, thirty feet in diameter, weighed 140 pounds. The hole of water was then located, and with the aid of a huge steam derrick the balloon was dropped into the hole. Then several scow loads of dirt were dumped down onto the balloon, and the whole thing was left to settle. At the end of ten days the work of cutting through the balloon was begun. This was a very

IN A SUGAR REFINERY.

PROCESSES BY WHICH THE RAW SUGAR IS REFINED.

Terrific Heat Endured by Some of the Workmen—Life in the Drying Rooms—Frightful Toil.

It is doubtful if there is any other group of buildings in or near New York where the fearful difficulties under which men labor for the bare privilege of living, are so plainly shown as they are in the towering, forbidding, fortress-like structures on the East River front of Brooklyn, owned by the American Sugar Refining Company, better known as the Sugar Trust.

The big buildings cover a space of four blocks on both sides of Kent avenue, from South First to South Fifth streets, and on the west side of the avenue extend to the river front, their grimy, dull-red walls extending seventeen stories above the street level. A close inspection of the Havemeyer refineries is necessary to a thorough realization of the immensity of the establishment, and this group is one of the refineries owned by the trust. It has no equal in size or in the amount of its business in the limits of the Greater New York. The employees of the great concern are disciplined with rules as strict as those which govern an army. If one attempts to get into the refineries he meets the discipline in the shape of a gruff watchman and a club, and a call at the offices reveals it in the shape of a more or less polite negative from the clerks, who will say that they cannot answer questions.

There are about 3000 men employed in the big refineries, and these are divided into day and night shifts. About 5 o'clock in the morning half of the force can be seen filing down into the basement of one of the great buildings. Work is begun immediately, and continued until 5 in the evening, when the men are supplied with checks, showing that they were on hand when work began.

The majority of the workmen are Poles and Hungarians, and the severity of their labors is shown by the fact that they are nearly all thin and stooped, and rarely above middle age, it being a well-known fact that men employed in the refineries rarely live to old age. They are nearly new immigrants when first employed, and before work is given them they must be found perfectly docile and obedient. The rules of the refineries are laid down to the applicant for employment, and he is told that he will receive \$1.12, \$1.25 or \$1.50 as the case may be, for the first year, and then, if his work is satisfactory, he may receive an additional five or ten cents a day. The man is assigned to work in one of the many departments, and if he has received the "tip" from friends of his own nationality before going to work, he trembles lest the chief may condemn him to the "dry room." It is he that, however, he receives it with characteristic stolidity, and is thankful for an opportunity to earn his miserable pittance, even under such terrible circumstances.

When the raw sugar is dumped from the ship in which it is brought to the refineries it is placed in a great cistern near the river's edge, and is dissolved in hot water. From this vat a sweet, sticky steam constantly rises, and every little while a workman, dressed in overalls and an undershirt, pops out from it, and in a minute or so pops back again, and is lost to sight in the moist cloud. The liquid is pumped up to the top story of the pile, passing through a wire strainer, which removes any particles of size which may be in it, and is emptied into great copper receptacles heated to 208 or 210 degrees Fahrenheit, known as boilers. The process of boiling requires considerable skill, and the men who have charge of it are paid \$100 or \$150 a month, the number receiving the latter figure being extremely limited, only one man in a hundred who receives employment in the refineries becoming a boiler, which is the highest ambition of the workmen.

The boiling and bubbling sugar is passed down through funnels to the next floor, where it is emptied into a box, the bottom of which consists of two thicknesses of canvas, one being coarse, the other fine. This thoroughly filters the stuff, and the room is kept at a terrific temperature in order that the liquid sugar may flow freely, and not become cool and thick. On the floor below is another great copper tank, some twenty-five feet deep and nearly filled with bone black. This purifies the sugar, and after being used for a few hours, becomes saturated with foulness, and is sent to the lower floor, where it is burned again. The sugar, which is still kept at a temperature of about 150 degrees, is passed into another receptacle, which is made airtight, and the air and steam are exhausted by means of a pump. As soon as the sugar is granulated, if it is to be soft, it is left off by means of centrifugal mills. If not, it is passed on to the great plates to be dried.

The rooms in which the drying is carried on are veritable infernos. No man can stay in them over ten minutes without falling down utterly prostrated by the terrific heat. No one but an employe is ever allowed within these walls, and no one but an employe would dare to go in them when the heat is on and the sugar is drying. Clothing is discarded, with the exception of a "breach cloth" and shoes, and there is absolutely no ventilation, as the windows are kept tightly closed, and at the windows in other rooms which are open the men may be seen gasping for breath, and with their hair and bodies wet as if they had been shorted from the East River, in their shortsleeves from their frightful toil.—New York Tribune.

Aluminum bronze consists of ninety per cent copper and ten per cent aluminum, and possesses a tensile strength of 90,000 pounds. It can be worked in the same manner as steel.

The idea of an ancient tropical continent at the South Pole, uniting South America, Madagascar and Australia, continues to arouse considerable interest and discussion in scientific circles.

Professor Dewar has demonstrated that metals augment their magnetic qualities and increase in strength by diminution of temperature. Iron at 180 degrees can endure double its normal tensile strain.

There is a mystery about the method of motion of condors that has never been explained. They have been seen to circle to and fro in the sky, half a day at a time, rising and descending without once flapping a wing.

Touch the convex side of a watch glass upon water so as to leave a drop hanging on the glass. Pour a little ether into the concave side and blow upon it. The rapid evaporation of the ether will render the glass so cold that the drop of water will be frozen.

Lieutenant F. Boyer, of the French navy, to avoid collisions, proposes to introduce at the top on all fast sailing steamers an electric light which will cast a beam ahead to indicate the direction in which the vessel is steering. So long as the approaching ship was not in the actual pencil of light it would be unnecessary to alter her course.

A new anthropometric test of sensitiveness has been designed by Dr. Galton. A band of color, showing all the sixty-five shades of blue, is slowly passed before the eyes, and the subject makes a dot for every shade detected. As far as the experiments have proceeded only about twenty shades are generally discovered. In one case, however, a dyer detected about forty.

A fish exerts its great propulsive power with its tail, not its fins. The paddlewheel was made on the fin theory of propulsion, and the screw propeller had its origin in noting the action of the tail. It is now shown that the fins of the tail actually perform the evolutions described by the propeller blades, and that the fish in its sinuous motion through the water depends on the torsional action of the tail to give it power.

Rent for Mule Land. The St. Louis courts have recently decided a case of no little interest to the dwellers on the banks of rivers where new land is likely to be made. Mrs. Anna R. Allen owns 145 acres of land at the point where the river crosses Peros enters the Mississippi, and she leased it to the St. Louis Iron Mountain and Southern. Later seventy-five acres was added to this tract by accretions from the Mississippi. The company has a transfer at this point and was compelled to cross the new land in transferring cars. It, however, refused to pay rent for the land embraced in the new formation, on the ground that it was not embraced in the lease. Judge Dillon held that the accretions had become a part of the original tract, and, inasmuch as the company had used the land, it was liable for rent. The land was valued by experts at \$450 per acre, and judgment was given against the railroad upon the basis of six per cent, on this valuation.—New Orleans Picayune.

Humming Bird Killed by a Bee. A humming bird was killed by the sting of a bee in Wisconsin not long ago. A beekeeper noticed a pair of ruby-throated humming birds flying around the entrance of one of the hives. Soon a bee made its appearance from within. One of the birds seized it tore it apart and seemed to be feeding on something found in the bee. Just then another bee came out, flew and alighted on the back of the bird. The latter gave a kind of spasmodic shudder, flew a few feet sideways, landed at the foot of a currant bush, and was dead, apparently killed by the sting of the bee.—New York Sun.