THE GREAT SAHARA DESERT OF AFRICA.

Popular Mistakes Concerning the Greatest Known Waste.

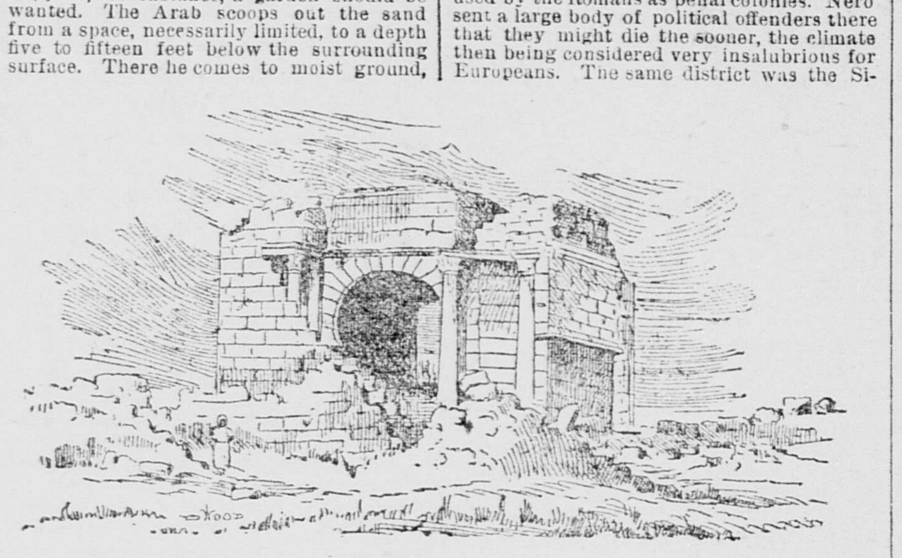
THE MOUNTAINS OF THE DESERT.

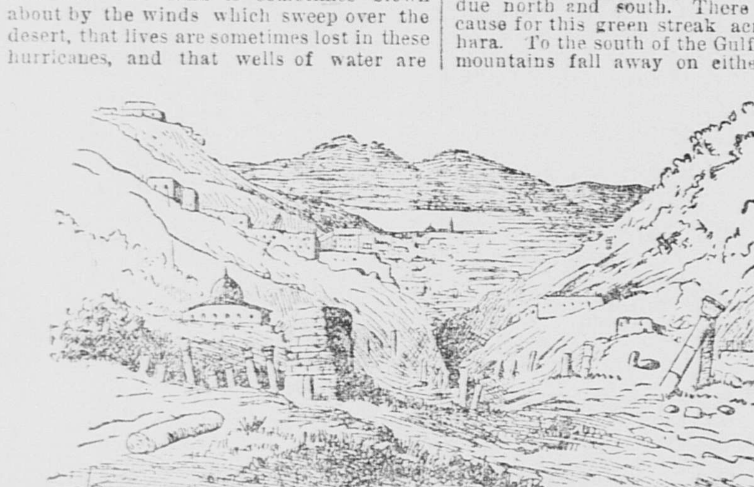
Extent, Resources and Population of the Country—Evidences of Civilization in Times Gone By—The Oases on the Desert Number Several Hundred on the Caravan Routes—A Part That Is Not Sterile.

THE energy of travelers has opened up every part of Africa to the world save the Desert of Sahara, which to the ordinary reader is still wrapped in almost impenetrable gloom and mystery. The common idea concerning this desert pictures it an expanse smooth as a floor, stretching away in the distance like the sea, the

A Saharan Beauty of the Harem.

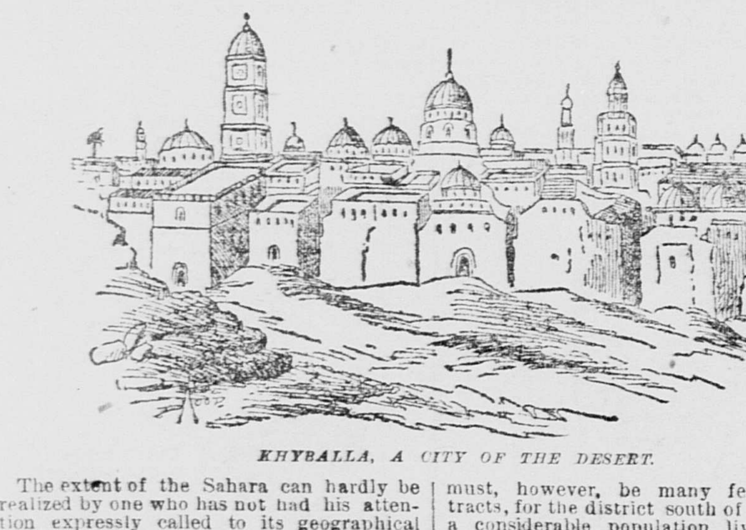
shifting sands blown by whirlwinds into clouds which overwhelm whole caravans. No doubt for this idea there is a foundation of fact. It is true that the Sahara is largely composed of sand; it is also true that this sand is sometimes blown about by the winds which sweep over the desert, that lives are sometimes lost in these hurricanes, and that wells of water are


THE ARCH OF SEVERUS.

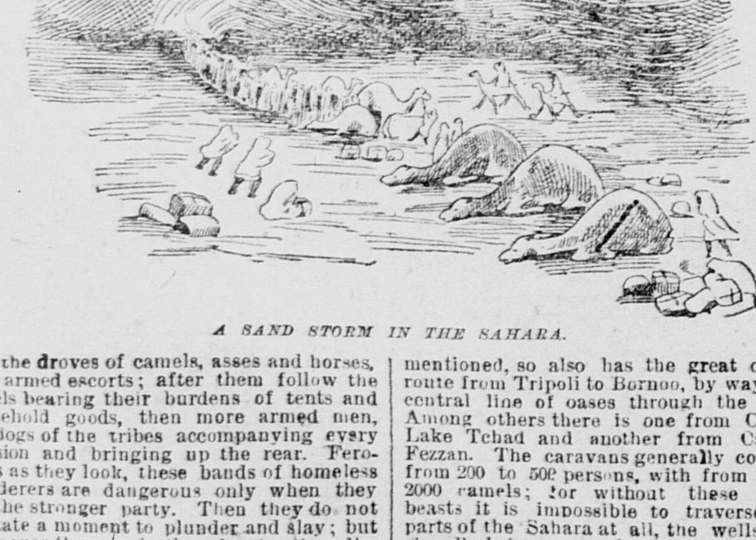

A RUINED ROMAN CITY.

often days apart, and travelers sometimes experience acute suffering in traversing the desert. But the Sahara is not level nor flat, but, save an occasional stretch of plain for a few miles, it consists of sand hills, so constantly changing their places and appearance that even the professional guides of caravans are sometimes misled by the alteration in the natural features of the country since their last trip.

But the Sahara is by no means all sand, for no inconsiderable portion consists of rocky mountains, the highest of them nearly 8000 feet in height, almost wholly destitute of vegetation, but even in their ruggedness sometimes easier to traverse than the sand hills, as affording a firmer footing. There is also a popular supposition that the Sahara contains no green thing; but this is now known to be a mistake, for in most parts tropical plants and grasses find a feeble nourishment here and there, while in many districts, after a rain—a rare phenomenon, by the way—grass springs up as luxuriantly as on some of our Western plains.


KHYBALLA, A CITY OF THE DESERT.

The extent of the Sahara can hardly be realized by one who has not had his attention expressly called to its geographical limits. From east to west its length is about 3000 miles; from north to south over 1000, comprising a territory estimated at [illegible] square miles, thus equaling in size [illegible] whole of Europe and exceeding the area of the United States. Nor is it destitute of population, for though no census has ever been made of its wandering tribes, estimates place the population of the Sahara at 2,500,000, consisting of Moors, Arabs and negroes, wandering to and fro among its sandy hills. The great desert presents no more picturesque spectacle than one of those wild horsemen, in gorgeous though dirty trappings, and accoutred with his savage and ineffective arms. Difficult as it is, to the verge of impossibility, for foreigners to pass through the desert, the nomads find no trouble whatever in doing so, and occasionally a caravan will meet one of the wandering tribes on the march. Armed pickets and guides go in advance, then come the flocks of sheep and goats,


A SAND STORM IN THE SAHARA.

then the droves of camels, asses and horses, with armed escorts; after them follow the camels bearing their burdens of tents and household goods, then more armed men, the dogs of the tribes accompanying every division and bringing up the rear. Ferocious as they look, these bands of homeless wanderers are dangerous only when they are the stronger party. Then they do not hesitate a moment to plunder and slay; but whenever they are in the minority they display a humility which is beautifully touching. They will kiss the hem of the traveler's garments, tell him they are his slaves and beg his commands. Nominally Mohammedans, they depart from many, if not most, of the cardinal points of Mohammedan doctrine. They do not hesitate to become intoxicated on palm wine, really a strong brandy, eat whatever they can get during Ramidan or at any other time of year. Their women go unveiled, and generally display a feminine curiosity to see the stranger and all that concerns him. The only point in which the Saharan nomad is in thorough sympathy with Mohammedanism and the Koran is in the matter of prayer. About this he is scrupulous; morning, noon and night he turns his face to Mecca, and, as in the desert water is too precious to be used for ablutions, he washes his hands in sand, spreads his prayer carpet and repeats the prayers of the hour. Singularly abstemious are these wanderers. Burton, in one of his marches, offered a Bedouin a drink of water. "No, I thank you, I drank yesterday," was the reply. Subjected to all sorts of hardships, traveling for days under a blazing sun, with only a handful of dates and a mouthful of water for a day's provision, the Arabs appreciate the necessity of making abstinence a habit, and, even when settled in comparatively fertile regions, are almost as frugal as when on the march.

A very common mistake concerning the Sahara is with regard to the oases. It is supposed that these are few and far between, but this is a mistake, for there are several hundreds; so many, in fact, that one-third the surface of the mighty desert is supposed to consist of more or less fertile land. But it is not fertile by nature, though rendered so by cultivation, for wherever there is a spring vegetation appears, and by care on the part of the inhabitants to prevent encroachments of the sand the limits of the arable land are greatly extended. Suppose, for instance, a garden should be wanted. The Arab scoops out the sand from a space, necessarily limited, to a depth five to fifteen feet below the surrounding surface. There he comes to moist ground, and in it plants his vegetables, setting out palms on the wall surrounding the cellar garden. It is a slow and costly way of cultivating the ground, but it is successful, and any tropical plants and vegetables may be raised in the neighborhood of a spring. The oases extend across the Sahara in lines, probably following the courses of subterranean rivers, and along these lines are the caravan routes, though it is probable that hundreds of the green spots in the desert are known to the natives but not to Europeans, for the latter follow only the course of the caravan roads, and no thorough exploration has ever been made.

A remarkable exception to the general sterility of the country is found in a district but a few miles wide, but running almost due north and south. There is a physical cause for this green streak across the Sahara. To the south of the Gulf of Sidra the mountains fall away on either hand, and scarce even a hill intervenes between the desert and the sea. To the east and west the south coast of the Mediterranean is mountainous, the Sahara being cut off from the Mediterranean by ridges green on their northern slopes and dry to the south. Through this gap, south of Sidra, the north winds blow, bringing with them the moist air of the Mediterranean, and by frequent rains, form a line of oases straight across the Sahara, from the sea to the heart of the dark continent. This part has a much cooler climate than the rest of the Sahara. On the Lybian Desert and to the west of Fezzan the Fahrenheit thermometer often ranges between 130° and 140°, while in Fezzan the winter temperature is frequently as low as 40°, and occasionally ice has been known in the heart of the desert. This is on rare occasions, however, and the greatest danger to caravans is from the intense heat, which kills alike man and beast. The western part of the desert is by far the worst portion, consisting of rocky mountains interspersed with sand hills. There must, however, be many fertile, grassy tracts, for the district south of Morocco has a considerable population living on the produce of flocks and herds. The caravan route from Tangiers to Timbuctoo is not capable of supporting a single family, but it is said that the road has purposely been made through the worst districts, the merchants preferring to undergo the dangers of the desert rather than those which would be encountered by passing through the territory of the hostile or greedy sheiks. The coast ridge is in general from 60 to 100 feet high; a very dangerous current sets in from the open sea, and the prevailing winds being from the northwest, when once a sailing vessel chances to be driven in close to the shore it is almost impossible to work out to sea. A vessel cast on shore is always plundered, and generally the crew are made slaves or put to death, so that even now this part of the African coast is more dreaded than any other.

Several caravan routes traverse the Sahara in various directions. The one from Tangiers to Timbuctoo has already been mentioned, so also has the great caravan route from Tripoli to Bornoo, by way of the central line of oases through the desert. Among others there is one from Cairo to Lake Tchad and another from Cairo to Fezzan. The caravans generally consist of from 200 to 500 persons, with from 500 to 2000 camels; for without these patient beasts it is impossible to traverse some parts of the Sahara at all, the wells occasionally being as much as ten days apart. An idea of the unpleasantness of the journey may be formed from the fact that it takes a caravan forty days from Cairo to Fezzan and nearly thirty more to the fertile regions south of the desert.

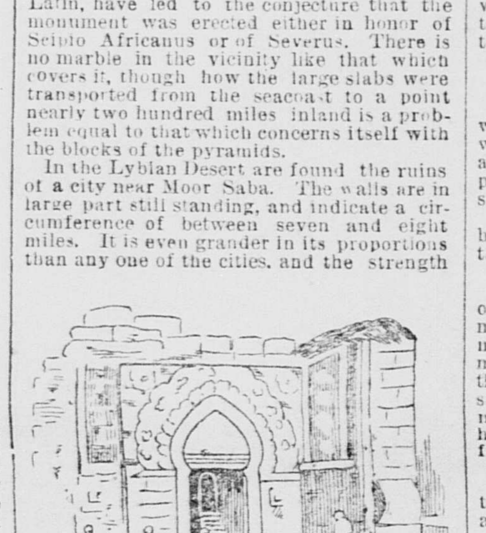
The productions of the Sahara are limited. Camels and domestic animals are reared by the Moors and Arabs, but aside from these there are only three articles of export—salt, gum-arabic and ostrich feathers. Salt is found in many places, and is generally taken by the caravans going south, for the Soudan produces no salt, and enormous profits are made by its purchase in the oases of the Sahara and sale along the Niger. The principal articles conveyed south by the caravans are European cotton goods, guns, ammunition and liquors. Much of the gum-arabic used in Europe and America is produced in the Sahara, for in the southwestern district are dense groves of acacias, and the product of their branches is gathered by the Moors and sold to the French in St. Louis on the Senegal. Ostriches abound in most parts of the desert, though what they live on is a problem. They are hunted both for their feathers and their flesh, though only a half-starved Moor could tolerate the tough, fibrous meat of this able-bodied bird. Besides ostriches, however, there are very few animals in the deserts, most of the wells and springs being monopolized by human beings.

It is a remarkable fact, however, that there are indications of a former abundant population in the Sahara, and signs that the climate was once less intolerably hot than it is at present. In many of the valleys signs of water courses are frequent, and sometimes on the sandy plains wells, still walled in, though now dry, are to be found, indicating that springs were once more abundant than they now seem to be. But the best sign of all that there has been a change in climatic conditions of the Sahara is the fact that, in the northern and central part evidence exists of a vast population. Fezzan and the southern part of the Sahara were used by the Romans as penal colonies. Nero sent a large body of political offenders there that they might die the sooner, the climate then being considered very insalubrious for Europeans. The same district was the Siberia of more than one Roman Emperor, and exile to the sands of Africa was in ancient times as much dreaded as is now a departure to Siberia.

At numerous points in the Sahara are remains of ruined cities. Carthaginian or Roman, which probably each contained from 5000 to 25,000 inhabitants. Walls, cisterns, wells, baths, aqueducts, temples, huge mansions, even great triumphal arches and large theaters and amphitheaters, show a teeming population. Various travelers have given accounts of these ruins, which are so extensive as to attract the notice of even the ignorant and degraded natives. A ten-mile ride through Fezzan, straight into the desert, there is a ruined city which, surrounded by sandhills, presents a picture of solitary grandeur not surpassed by the remains of Baalbeck or Palmyra. Great columns still stand, upholding vast cornice blocks; elegant sculptures may still be traced on slab and block, though partially obliterated by the never-ceasing attrition of the flying sand, while here and there fallen capitals, half-covered, bespeak a civilization which has passed away.

In West Sahara, to the south of Algiers, there stands in the middle of a sandy plain a triumphal arch, erected, as the Moors say, in honor of a great victory gained there. It is covered with inscriptions, which, however, save a word here and there, are illegible, and the deciphered portions, being Latin, have led to the conjecture that the monument was erected either in honor of Scipio Africanus or of Severus. There is no marble in the vicinity like that which covers it, though how the large slabs were transported from the seacoast to a point nearly two hundred miles inland is a problem equal to that which concerns itself with the blocks of the pyramids.

In the Lybian Desert are found the ruins of a city near Moor Saba. The walls are in large part still standing, and indicate a circumference of between seven and eight miles. It is even grander in its proportions than any one of the cities, and the strength


The Tangiers "Desert Gate."

of its fortifications indicates that the enemy's country was not far away. It was probably an outpost of the Romans against the Soudanese, and its large cisterns, choked-up wells and filled amphitheaters indicate not only the size and importance of the city, but also the luxury of its population. Cities do not spring up in deserts; hence, it is probable that the climate of Sahara was formerly more pleasant, that rains were more frequent, and better conditions of life prevailed. It is known that iron ore, granite and marble are abundant in the desert, for mines and quarries have been found. Thus cities could be easily builded. It is probable that when vegetation was more abundant and families, both wild and domestic, were more numerous, that the Sahara was not the uninviting region that it now is.

Geologists believe that parts of the Sahara were once at the bottom of the sea, and that in one of those bygone ages, the surround-

Prayer in the Desert.

ing coast, comprising now a sandy waste, was formed like other tropical regions. Whether this were true or not, it is not impossible that the desert again may blossom like the rose, for the French, who have an interest in the country, and are credited with a desire to own it all, have a project for making an inland sea in the western part of the desert. It appears from surveys made that about 120 000 square miles, not far from the coast, are below the level of the shore, and a canal cut through the coast hills would flood this portion of the desert and might produce a change in its climate. This, however, is a piece with the scheme for a transsaharan railroad from Fezzan and the oases to Timbuctoo and Bornoo. This is a day of great projects, and whether such giant undertakings will ever be realized is impossible to predict; but even should the canal be dug and that portion of Sahara flooded with water, there is no reason to suppose that any very material change in the climate will result, save in the immediate vicinity. Far more reliance can be placed on the artesian wells, for wherever these have been sunk excellent water is found at a depth of 200 to 400 feet, and with good water an inland sea is by no means a necessity.—Globe-Democrat.

No Wreck Ashore

Was ever more hopelessly stranded than a wrecked constitution, whether its disaster be the product of some formidable malady, or that slow, premature decay that seems to fasten upon some constitutions without apparent adequate cause. An excellent means of checking this gradual drain of the sources of vitality is the beneficent tonic, Hostetter's Stomach Bitters, which promotes digestion, enriches the blood and gives substance as well as stamina to an enfeebled frame. Constipation, feebleness of the kidneys and bladder, fever and ague and rheumatism, are among the bodily ailments which it remedies promptly and thoroughly. Persistence in its use is well merited by it. 4

A COLLECTION OF CARD STORIES.

Marking the High Honors of a Whist Pack to Note to Whom Dealt.

A Coffin Used for a Card-Table—How Cavour Saw Through the Game—Death the Stakes. The Longest Game on Record.

At a social gathering a few evenings ago, the conversation turning upon luck, says the Boston Globe, a gentleman remarked: "All this talk about 13 being an unlucky number is sheer nonsense. What, for instance, is luckier than holding thirteen trumps at whist?"

"Humph!" replied another gentleman, "I held a thirteen-trump hand once, and didn't make more than one trick with it."

"How could that be?"

"Well, you see, my partner was somewhat hot-tempered, and when I trumped his ace he jumped up and fired me out of the room."

Henry Lord de Ros was once said to be one of the best whist-players in England. Subsequently, however, it was discovered that he was in the habit of aiding his skill by marking with his nail the high honors of the pack so that he might observe to whom they were dealt.

During the scandal which followed this discovery, a fop who had never been admitted to his acquaintance drawled out, "I would leave my card at his house, but I fear he would mark it."

"That would depend," remarked a gentleman present, "on whether he considered it a high honor."

De Ros did not long survive the disgraceful exposure, and Theodore Hook is said to have embalmed his memory in the following punning epitaph:

Here lies the premier baron of England patiently awaiting the last trump.

Lord Lytton was extremely fond of whist and belonged to the well-known Portland Club, in which were to be found many celebrated players. There was one member of the club, a very harmless, inoffensive man of the name of Townsend, for whom Lytton entertained a peculiar antipathy, and would never play while that gentleman was in the room. He firmly believed that Townsend brought him bad luck.

One afternoon when Lord Lytton was playing and had enjoyed an uninterrupted run of luck, it suddenly turned, upon which he exclaimed, "I am sure that Mr. Townsend has come into the club."

Some two minutes after, just time enough to ascend the stairs, in walked this unlucky personage. Lord Lytton left the table as soon as the rubber was over and did not renew the play.

Swift alludes to whist as a favorite pastime, and Hayward tells us that about the beginning of the century there was in a country town in Somersetshire a whist club, that met for play every Sunday evening in the back parlor of a barber.

On one occasion, when four members of this club were acting as pall-bearers at the funeral of a brother, some delay occurred from the grave not being ready, and the coffin was set down. By way of whiling away the time one of them produced a pack of cards from his pocket and proposed a rubber. The rest gladly assented, and they were deep in the game, using the coffin as a table, when the sexton came to announce that everything was ready.

PLAYING ON THEIR DEATH BEDS.

Goldsmith somewhere tells of an old lady who, lying sick unto death, played cards with the curate to pass away the time, and after winning all his money had just proposed to play for her funeral expenses when she expired.

Mazarin also played cards on his death bed and while he was so weak that he had to have some one hold his cards for him.

When Cavour sat down to his first game of double dummy he lost a large sum to a member of the Paris Club. He paid the money with the best grace imaginable, and merely remarked that he thought he saw through the game and that it might not be such a bad investment after all. The next night he met the same antagonist, played high and steadily for several hours and rose from the table a richer man by $150,000.

Still larger were the winnings of Espartero from his foe Marota, if the truth is told about them. The story runs that they agreed to meet privately in a lone farmhouse at Bergara to arrange a truce between their respective forces. No sooner did Espartero enter the room than the Carlist chief challenged him to a game of tressilio, a challenge the Christino commander accepted with alacrity. Espartero first won all Marota's money, then his own conditions for a truce, article by article, and finally the entire submission of the Carlist army. Within twenty-four hours Marota had paid the debt and the first Carlist war was at an end.

A traveler in New Zealand, spending the night in a squatter's hut, was invited to cut in for a rubber of whist. As he took his seat he inquired "What's points?"

"Why!" said his partner, in a tone indicating surprise at such a question, "the usual game, of course—sheep points and a bullock on the rubber."

Perhaps the most remarkable wager ever made was brought to light in an investigation which took place in Bow street in 1812. The police officer reported that he had seen two men on a wall on Hampstead road, one of them hanging by the neck from a lamp post, having just been tied up by the other. It came out that they had played all day, first for money, then for clothes, and finally, which of the two should hang the other. The larger man of the twain lost, and was actually paying the penalty when the police officer intervened and saved his life.

Anent Lord Granville's devotion to whist, there is the following well-authenticated story:

One afternoon, intending to set out for Paris, he ordered the carriage at Graham's at 4. When it came around he was playing whist. At 10 o'clock he sent out to say that he should not be ready for an hour or two yet, and that the horses had better be changed. Again six hours went by and the coachman appearing was ordered to change them again. Three times at intervals of six hours were fresh horses put in before he was ready to start. When the party rose they were up to their ankles in cards, and the Embassador, it was reported, was the loser to the tune of £8000 or £10,000.

But a still longer sitting at the card-table was that in which Governor Stokes of North Carolina and Mountjoy Bailey, Sergeant-at-Arms of the Senate, were two of the players. They sat down to cards on Thursday evening, played all that night and the next day, only stopping occasionally for refreshments. The game was continued Friday night and Saturday, through Saturday night and all day Sunday and Sunday night, the players resting for a snatch of sleep as nature became exhausted. Monday morning the game was in full blast, but at 10 o'clock Bailey moved an adjournment, alleging that his official duties required his presence at the Senate chamber.

Stokes remonstrated, but the Sergeant-at-Arms persisted and rose from the table.

The Governor grumbled and scolded, but finally gave it up, swearing that if he had suspected that Bailey would break up the game thus prematurely he would have seen him—so to speak—before he would have invited him to join the party.

AN EDWARD EVERETT STORY.

One evening when Washington Irving, Everett and Bancroft were chatting over diplomatic reminiscenses Everett told how when he and the Neapolitan Embassador had been presented to her Majesty Queen Victoria, Lord Melbourne intimated that they would be expected to join in a game of whist with the Duchess of Kent.

"I play but a very poor game myself," said Melbourne, "in fact, I scarcely understand it."

"And I," said the Neapolitan to Everett, "am a very bad player, and should I chance to be your partner I invoke your forbearance in advance," to which the American Envoy replied that he knew very little of the game himself.

"Here," said Everett, in relating it, "were three dignified persons, clad in gorgeous attire, solemnly going to play a game they imperfectly understood, and for which none of them cared a straw."

Upon reaching the Duchess' apartments the Embassadors were formally presented, and then, at her invitation, sat down to play.

As soon as the cards were dealt a lady-in-waiting placed herself at the back of the Duchess, and the latter said: "Your Excellencies will excuse me if I rely on the advice of my friend here, for I must confess that I am really a very poor player."

This was almost too much for Everett's gravity, and it was only with the greatest effort that he could refrain from laughing aloud at the ludicrous formality of the situation.

When Lord Thanet was imprisoned in the tower for the O'Connor riot three of his friends, the Duke of Bedford, the Duke de Laval and Captain Smith, were admitted to play whist with him, and remain till the lock-up hour at 11.

Early in the sitting Captain Smith fell back in a fit of apoplexy, and one of the party rose to call for help.

"Stop!" cried another, "we shall be turned out if you make a noise; let our friend alone till 11, we can play dummy and he'll be none the worse, for I can read death in his face."

Shortly after the close of the Secession War General Forrest and his wife stopped at a hotel in Memphis, and after examining their purses found the sum total of their wealth amounted to $7 30. The General being due that evening at a house where he knew poker was sure to be played, proposed that he should tempt fortune to the full extent of his means, and asked his wife to pray for his success. She would not promise, but he felt that she was for him, and knew how it would be. But let him tell the rest in his own words:

"They had tables—one was a quarter-dollar table, one a half, and one a dollar and a half. I wanted to make my $7 last as long as I could, so I sat down to the quarter table. By dinner-time I had won enough to do better, and after we had eaten, sat down to the dollar and a half table. Sometimes I won, and then again I'd lose, until nigh upon midnight, when I had better luck. I knew Mary was sitting up anxious, and it made me cool.

"I set my hat upon the floor, and every time I won I'd drop the money in the hat. I sat there until day broke, and then I took my hat in both hands, smashed it on my head and went home.

"When I got to my room there sat Mary in her gown. She seemed tired and worried, and though she looked mighty hard at me, she didn't say a word. I walked right up to her, and emptied my hat right into the lap of her gown, and then we counted it. Just $1500 even, and that gave me a start."

HOUDIN'S SARCASTIC TRICK.

Happening to drop into a Continental casino one day Robert Houdin observed a Greek reaping a rich harvest at ecarte, and as soon as a seat became vacant he took it. The Greek, dealing dexterously, turned a king from the bottom of the pack. When the deal came to Houdin he observed:

"When I turn kings from the bottom of the pack I always do it with one hand instead of two; it is quite as effective, and much more elegant. See! here comes his majesty of diamonds," and up came the card.

The cheat stared at the conjuror for a moment, and then rushed from the place withing to possess himself of his hat, coat or winnings.

Another of the light-fingered fraternity, after winning ten games at ecarte in succession tried his fortune against a new opponent, and continued to win. He had made four points, and, dealing, turned up a king and won.

"My luck is something wonderful," he replied.

"Yes," said his adversary, "and all the more wonderful since I have the four kings of the pack in my pocket"; and the professor of legerdemain laid them on the table.

There is a good story told of the outwitting of a gambler and a confederate, who was looking on, by an apparent innocent. The game, which was Napoleon, is played in this manner: Five cards are dealt and the players in turn declare the number of tricks each claims to make. Whoever declares the highest number plays against the rest, and the first card led is trumps.

There were in this case only two players, and to the "innocent" was dealt ace, king, queen, knave of clubs and ace of diamonds. He naturally backed himself to get five tricks, the chances in favor of his doing so being enormous. He intended, of course, to make clubs trumps, but the readiness with which his wagers were accepted by the onlooker who saw his opponent's hand, aroused his suspicions, and when the stake had risen to a high amount, he made his solitary diamond the trump, and found his adversary with five clubs, and so made every trick.

A Mr. Purdy of New York, as the end of his bachelorhood drew nigh, let his old cronies know that he intended to give up card-playing as soon as he was married. On learning this they put their heads together, and a day or two after the wedding invited him to a little dinner at Delmonico's, at which he was to receive a $300 silver service.

Dinner done and the presentation made, the party made themselves and their guest merry over some excellent wine, and when they thought the time had come, proposed a game of poker, and Purdy gave in, "just for this once."

His hosts had fixed things nicely, and calculated upon winning the price of their wedding gift, the dinner and the wine. When, long after daylight the next morning, the game broke up, the intended victim not only held possession of the silver service, but had completely cleaned out every one of his opponents.

A gentleman who has traveled in Russia relates the following:

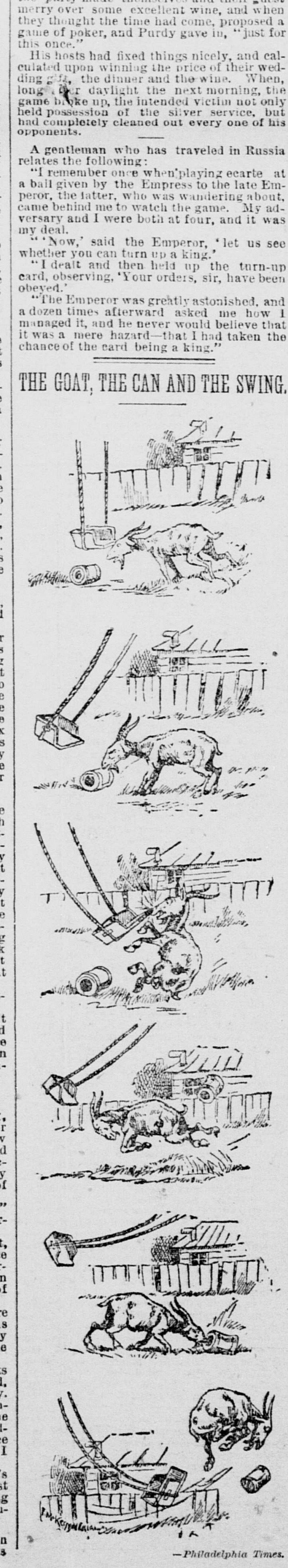
"I remember once when playing ecarte at a ball given by the Empress to the late Emperor, the latter, who was wandering about, came behind me to watch the game. My adversary and I were both at four, and it was my deal.

"'Now,' said the Emperor, 'let us see whether you can turn up a king.'

"I dealt and then held up the turn-up card, observing, 'Your orders, sir, have been obeyed.'

"The Emperor was greatly astonished, and a dozen times afterward asked me how I managed it, and he never would believe that it was a mere hazard—that I had taken the chance of the card being a king."

THE GOAT, THE CAN AND THE SWING.



—*Philadelphia Times.*

TALKS FOR BOYS.

II.

By Colonel Thomas W. Knox.

It is often said that the age of miracles is past, but is that really the case? In all of our cities the Rock of Horeb stands at the street corners, and even in our houses; the turning of the faucet gives us the result which Moses obtained with his wand. The Enchanted Carpet of the Arabian Nights is found in the ocean steamship and the Pullman car; the Burning Bush, which, though burning, was unconsumed, is repeated in the incandescent lamp of Edison and his rivals, and the girdle which Puck would put around the earth in forty minutes is accomplished by the telegraph. Nay, more; the forty minutes of Puck are altogether surpassed, as the lightning's flash is made in an instant, and far outstrips that slothful laggard, the sun. Populous cities that rose in the desert in a single night are brought to mind in the wonderful growths of many modern cities which could be named, and the work of the magicians who swept away great armies by means of their spells is fairly rivaled by the breech-loading cannon of Krupp, and the machine-guns of inventors by the score. The heliograph flashes intelligence over long distances with magical speed, and without the aid of the electric wire, and the torpedo buried in our harbors places the volcano at our service for protection against a hostile fleet. And now we are told that through the skill of a Western inventor we are shortly to fly through the air in machines under our control, and bid defiance to the accidents of solid earth and the impediments it presents to locomotion. What is to come next?

* * *

Recently I was one of a dinner party that met Mr. Mounteney Jephson, one of the officers, and a very efficient one he was, who accompanied Stanley in his march through Africa for the relief of Emin Pasha. During the conversation at the table some one asked Mr. Jephson what he considered the most remarkable thing about Africa. "The greatest wonder about Africa," he replied, "is to know how they got along there before they had opened communication with the rest of the world, and especially with America. Plantains and bananas, which form a large part of their food, came from Asia and were not known in Africa for a long time after the history of the human race begins. Maize, what you in this country call corn, came from America, and so did manioc and tobacco; of course men can get along without tobacco, but if you should take maize and manioc away from Africa to-day you would deprive the people of two very important articles of food. There is the potato, too, which came from America; think what a boon it has been, not only to Africa, but all the rest of the world, especially to Ireland. Hardly a thing can be named in Africa that is an article of food which did not come from some other part of the world, and that, too, after great kingdoms had flourished there for a long time and the country, from one end to the other, was well populated. Deprive them to-day of their edible exotics, and there would be a famine in the land which would sweep off three-fourths of the population before the end of another year."

* * *

The remark of the guest, who is a delightful conversationalist and one of the most modest of men, turned the table talk in the direction of the benefits that the different countries of the earth have conferred on each other. One of the party called attention to the fact that in one respect Africa is to-day very much in the condition of America before its discovery by Columbus. When asked to explain he said that 400 years ago America had no beast of burden of any kind save the llama, whose habitat was the southern half of the continent. North America had no load-bearing animal whatever, and anything to be transported on land was carried by men, as Africa carries its burdens to-day. Horses and cattle are exotics, and so are sheep, goats, pigs, dogs and even the harmless necessary cat. Then the sources whence tea, coffee, sugar and other edible things of our daily life come were brought under consideration, and the conclusion the party reached was that America must have been a dreary sort of place to have a good dinner in at the time Columbus first saw its shores. There was little to eat, very little to wear, no furniture that was worth the name, and those who went home after dinner were obliged to walk. "No wonder the Indians were thin and slender," said one of the talkers. "Who ever heard of a fat Indian in those days?" Mr. Jephson admitted that America might have been a very dull place 400 years ago, but not much duller than Europe before it had the good things it afterward received from America, and especially the potato, which he dwelt upon with enthusiasm, and then explained that he was born in Ireland.

* * *

I observe that the subject of the preservation of forests has received a fresh impetus in the past few days by the meeting of the American Forestry Association. The future of the country—not, perhaps, in our day, but surely within the next hundred years—will be seriously affected by the condition of our forests, and this circumstance should be brought to the mind of every American of whatever age. Let every boy bear in mind that the forests are among our best friends; that they prevent droughts or greatly mitigate them, and have the same influence upon floods. Here is a range of hills, covered with forests, which is subjected to a long-continued rain. The rain is held in the ground in the dead vegetation among the trees and around their roots, and is drained away very slowly. Let the same hills be bare of trees and the rainfall which the forests would be weeks or months in parting with is drained off in a few hours, with the result that the streams are severely swollen, and often to the destruction of property and the peril and destruction of life. Every boy should be taught that a tree has life, and the destruction of that life should be as repugnant to him as the killing of a pet horse or other domestic animal. Treat the trees as your pets and friends, and hesitate as much to destroy a tree in the forest as you would to cut down the elm that shades the front of your house. Take a lesson from the Japanese peasant, who has such a reverence for the trees that he would rather move his house than cut off the limb of a tree that is growing against it. In certain parts of Spain there is a custom which might be adopted here to great advantage. When a man eats an orange or other article of fruit he drops the seeds by the wayside and forces them into the ground with his foot, trusting that they will grow and become useful to those who come after him. The result is that in the part of Spain where this custom has long been followed there are many fruit trees by the side of the road, and the product has satisfied the hunger of thousands of travelers.

* * *

Late accounts from Russia say that the Government is pushing forward its project for a railway through Siberia. Several hundred miles of the line are already completed, the railway being in operation from Perm to Tiumen, and a considerable distance beyond the last-named point has been taken in hand by the contractors. But there is a very large gap to be filled, as it is nearly if not quite 4000 miles from the end of the present line to Vladivostok on the eastern coast, where the railway is intended to terminate. Generally speaking the country is a vast plain, and therefore an easy one for the construction of a railway. There are only two or three mountain chains in the whole distance, and these offer no more obstacles than are presented in this country by the Alleghanies and far less than those of the Rocky Mountains and the Sierras. When the railway is completed so that one can travel by train from Vladivostok to St. Petersburg the time around the world will be materially shortened. With steamers making direct connection between Vladivostok and San Francisco the journey from New York to New York again can be made inside of forty-five days, and may easily be brought down to forty days if the steamers and trains run at fair speed, and do not keep the traveler waiting too long in the connecting ports. How the world moves! Yesterday I picked up a book upon California, written in 1850, in which the writer said: "I venture the prediction that the time will yet come when men now living may go from New York to San Francisco in less than thirty days." I might be inclined to laugh at him, now that we have reduced the journey to four and a-half days, were it not for the fact that in a book of my own, written twenty-four years ago, I find that I spoke of the possibility of going around the world in "scarcely more than a hundred days."

* * *

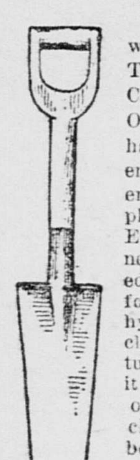
Speaking of a journey around the world, did you ever hear of anybody undertaking to make it on foot? Well, it was undertaken more than a century ago by an English Corporal of marines named Lediard. In the winter of 1786 he started from London with the design of walking around the globe or around as much of it as possible. He designed to traverse Europe and Asia on foot and then be ferried across Behring Straits to the American shore, whence he would continue his journey to the Atlantic Ocean somewhere between New York and Labrador. He was an American by birth and had no money—a very common condition of Americans in London at the present day. Sir Joseph Banks and others raised a subscription for him to the amount of £50, and with this quantity of cash in his pocket he started. He walked to St. Petersburg by way of Hamburg and Copenhagen, going around the Gulf of Bothnia to the north. Then he continued to Siberia, and went as far as Yakutsk, intending to press on toward Behring Straits in the spring of 1788. But in January of that month he was arrested by order of the Empress, taken back to St. Petersburg, and afterward put across the Polish frontier with orders not to enter Russia again without the imperial permission. Thus was his enterprise broken up.

A similar journey was undertaken in 1820 by an eccentric officer of the British navy, Captain Cochrane. He traversed Europe and Siberia, and reached Kamschatka after many adventures, but with a whole skin and bones. Lediard's journey was broken off by a Russian woman, the Empress; Captain Cochrane's journey was ended in Kamschatka by another Russian woman, who was not an Empress at all, but only an ordinary mortal. The Captain fell in love with and married a native of Siberia, and through her influence the pedestrian tour around the world was abandoned. He returned to England by way of Russia in 1823, and died two years later.

Copyright, 1891.

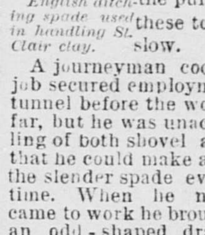
DIGGING ST. CLAIR TUNNEL.

The Simple Invention of a Cooper Greatly Accelerated the Work.


English ditching spade used in handling St. Clair clay.

The great St. Clair tunnel which will carry the Grand Trunk Railroad under the St. Clair River from Port Sarnia, Ontario, to Port Huron, Mich., has been richly productive of engineering feats and phenomena, one of the best and simplest of which is related by the Engineering News. The tunnel was excavated by a sharp-edged cylinder, which was forced through the stiff clay by hydraulic pressure. As the clay oozed through the apertures in the advancing shield it was dug away and carried off. So stiff and sticky was this clay that ordinary shovels were bent out of shape in handling it, and the only tool that would stand the service was a narrow, long-bladed English ditching spade, which was imported for the purpose, but progress with these tools was exasperatingly slow.

A journeyman cooper who was out of a job secured employment as a laborer in the tunnel before the work had progressed very far, but he was unaccustomed to the handling of both shovel and spade, and decided that he could make a tool that would beat the slender spade every time. When he next came to work he brought an odd-shaped draw-knife made of a piece of heavy band-iron, and two wooden handles. The cooper's fellow-laborers made fun of the novel tool, but when they saw him shave down the clay with it twice as fast as it could be chopped out with a spade their derision ceased. The engineers in charge quickly recognized the value of this simple adaptation, and all the laborers were soon furnished with the new tools.


The draw-knife that was substituted.

Subsequent progress in driving the tunnel was the most rapid that has ever been made in tunneling, the average rate having been 455 feet per month.—Philadelphia Record.

TREES THAT ARE SACRED.

Legends Concerning the Ash, the Oak and the Date—A Sacred Flower.

The palm, the oak and the ash are, according to a timely and interesting article in the June number of the "Deutsche Rundschau," the three trees which, since time immemorial, were held to be sacred trees. The first among them, which figures on the oldest monuments and pictures of the Egyptians and Assyrians, is the date-palm hometan. Tradition of a later period says that when Adam left Paradise he was allowed to take with him three things—a myrtle, because it was the most lovely and most scented flower on the earth; a wheat ear, because it had the most nourishment, and a date, because it was the most glorious fruit of the earth. The date from Paradise was in some marvelous way brought to the Dejaz. From it have come all the date-palms in the world, and Allah destined it to be the food of all true believers, who shall conquer every country where the date-palm grows.

The oak was always considered a holy tree by our own ancestors, and, above all, by the nations of the north of Europe. When Winifred of Devonshire (680-754 A. D.) went forth on his wanderings through Germany to preach the Gospel one of his first actions was to cut down the giant oak in Saxony which was dedicated to Thor and worshiped by the people from far and near. But when he had nearly felled the oak, and while the people were cursing and threatening the saint, a supernatural storm swept over it, seized the summit, broke every branch and dashed it, quasi superni, motus solaris, with a tremendous crash to the ground. The heathens acknowledged the marvel and many of them were converted there and then. But the saint built a chapel of the wood of this very oak and dedicated it to St. Peter.

The Celts and Germans and Scandinavians, again, worshiped the mountain ash, and it is especially in the religious myths of the latter that the "Askr Yggdrasil" plays a prominent part. To them it was the holiest among trees, the "world-tree," which, eternally young and dewy, represented heaven, earth and hell. According to the Edda, the ash Yggdrasil was an evergreen tree. A specimen of it (says Adam of Bremen) grew at Upsala, in front of the great temple, and another in Dithmarschen, carefully guarded by a railing, for it was, in a mythical way, connected with the fate of the country. When Dithmarschen lost its liberty the tree withered, but a magpie, one of the best prophesying birds of the north, came and built its nest on the withered tree and hatched five little ones, all perfectly white, as a sign that at some future time the country would regain its former liberty.

FUNNY PARAGRAPHS

That Were Written for Smith, Gray & Co.'s Monthly.

De Quille—There was only one favorable review of Jaffray's book, but it turns out that only one of the reviewers had read it.

Van Blotter—Well, poor Jaffray needn't feel so badly now.

De Quille—Yes; he's more mortified than ever.

Van Blotter—How so? Wasn't the one favorable notice of the book by the man who read it?

De Quille—Yes; but you see that man was Jaffray.

FROM BAD TO WORSE.

Brindle—Dolliver, your health is failing; I can see it.

Dolliver (dolefully)—I know it, but what can I do?

Brindle—I had a friend—just like you—who went to live with his relatives in Jersey, and got rid of the disease in a year.

Dolliver (as before)—But how long did it take to get rid of the relatives?

HE TREATED, YOU SEE.

Stokes—It's disgusting to see how Brown and Robinson fawn on Jones since he got his money.

Hodges—When he takes snuff they both sneeze, eh?

Stokes—Worse than that. When he takes beer they call for champagne.

UNCONSCIOUS IRONY.

He knocked at the door as I lay in bed:
"Here's a telegram, sir!" My slumbers fled
As I opened the paper and quickly read:
"Come home at once, Minnie is dead!"
"Happy New Year, sir," the messenger said.

A LITTLE MISUNDERSTANDING.

"This American practice of tipping is something frightful. Servants no longer seem to be content with small sums!"

"How is that, your lordship?"

"A waiter at breakfast this morning actually asked me for my check!"

A QUIET HUBBUB.

Snoodlum—Have you heard of the hubbub Mr. South Church raised?

Reedy—Why, I thought he was a quiet sort of a chap.

Snoodlum—Yes, but he's raised a Hubbub—a Boston boy, you know.

A RETROGRESSIVE ADVANCE.

First Partner—We'll have to do something to cut down expenses. We haven't made a cent during the current year.

Second Partner—Well, let's give the bookkeeper a half interest in the firm, without salary.

The Countess of Ravensworth.

A little scene from the life of the late Countess of Ravensworth, who died last week, reads like a chapter of hagiography. The deceased lady joined the Church of Rome in 1879, and was an ardent Catholic. At Ravensworth Castle there is a tower mounted by a winding staircase, and in this tower there is a solitary chamber, with concrete floor, without carpet or mat, the furniture consisting solely of a table and chair. Here every morning, winter and summer, without a fire, Lady Ravensworth made her hour's mental prayer from 7 to 8, and again from 6 to 7 in the evening she was in her turret chamber. The morning hour was strictly adhered to, no matter how late the time overnight to which her social duties were prolonged.—Galignani's Messenger.

WAGES THAT BIG MEN EARN.

Enormous Salaries That Seem to Be Paid for Very Little Effort.

Some of the people in the financial and commercial circles are telling of a movement among certain employers and heads of great houses to cut down salaries for the coming year. This line of policy has been dictated, it is said, by the events of the last few months, and it has opened up a most interesting discussion, says the New York Times.

Chauncey Depew has always been very reticent as to his salary as President of the New York Central, but others who appear to be familiar with his income say that he certainly receives from the New York Central $75,000 a year, and that he makes from his outside legal practice an additional $25,000, making his total income $100,000 a year. This may seem an exorbitant sum to pay to a man whose career by most folks is thought to be one of unalloyed pleasure. But Mr. Depew does not receive the $75,000 from the New York Central in remuneration for any severe manual strain on his part, but for his comprehensive knowledge of the affairs of that company and his ability to direct them with the least possible friction. Mr. Depew's office from early morning to late at night is filled with all sorts of people, with all sorts of questions, and the man who receives the big salary he does must be able to answer them most satisfactorily, and always in the interest of the New York Central.

Then take some of the salaries of other New Yorkers. H. B. Hyde, President of the Equitable Life Assurance Society, receives $50,000; James W. Alexander, the Vice-President, $40,000, and John A. McCall, the comptroller, $25,000. R. A. McCurdy, President of the Mutual Insurance Company, receives $50,000, and R. A. Grannis, the Vice-President, receives $30,000. W. H. Beers, President of the New York Life Insurance Company, receives $60,000, and Dr. Henry Tuck, the Vice-President, $30,000. John R. Hegeman, the Vice-President of the Metropolitan Insurance Company, receives $35,000. D. O. Heald, President of the Home Fire Insurance Company, gets $35,000, and John W. Murray, the Vice-President of the German-American Company, $35,000.

Then look at some of the salaries paid to the chief officers of banks and trust companies. Frederic P. Olcott, President of the Central Trust Company, receives $60,000; Richard King, President of the Union Trust, receives $50,000; General Louis Fitzgerald, President of the Mercantile Trust Company, receives $30,000; John A. Stewart, President of the United States Trust Company, toddles along with $50,000; and Colonel W. L. Trenholm, President of the American Surety Company, receives $20,000. President Williams of the Chemical Bank and President Perkins of the Importers' and Traders' each receive $20,000, and the average salary of other bank Presidents in New York is from $10,000 to $15,000. There is a long string of such salaries and the general opinion is that the men earn their money.

The interests of these vast companies are all under the minute observation of the commanding officer. These interests extend over all the globe and require the greatest judgment and the most skillful knowledge of affairs. Many of these officers, by their keen knowledge of affairs of State and nations, save their companies annually ten times the salary they receive. They are provided against almost every system of blackmail by reason of their vast experience in the conduct of their companies and earn their salaries many times over.

Up in the dry-goods district the big men of the Claflin Company, Tefft, Weller & Co., and other firms of that caliber, receive on an average $5000 to $10,000 a year. There are several exceptions where buyers and others run their incomes up from $10,000 to $20,000 a year. This is in the dry-goods jobbing branch, because in the dry-goods commission branch the average salary of an employe is from $2500 to $5000 a year. There are exceptional people who receive $7500. All of these people earn their money, too. The vast experience necessary to buy goods successfully and to keep in touch with the vast competition of the present day is certainly worth a liberal income. Then the selling of goods requires an extended acquaintance, much personal outlay, and the temperament of a diplomate.

Looking over these few facts and figures, the salary of the President of the United States comes in for consideration. The President receives $50,000 a year, and from the day he enters the White House until the hour he leaves it very few men can tell how hard he earns his money. There can be no adequate rule of compensation applied to his case. The vast army of office-holders and office-seekers who besiege him ought to make the place worth $500,000 a year at least. But possibly the compensation for the place is eked out by its great honor and the hurrahs and cheers which greet the President, no matter how unpopular he may be, wherever he goes. The salutes of the great cruisers, the bands playing "Hail to the Chief," the great personal honors shown the holder of the office, no doubt are intended to make up the compensation, which cannot be represented by his salary of $50,000 a year. The Cabinet officers receive $8000 a year. Senators and Congressmen receive each $5000 a year. Governor Hill receives $10,000 a year, and the Senators and Assemblymen receive $1500 a year. One has only to look at the difference in the figures received by men in public life and those paid to men who reach the pinnacle in business life in New York to observe the great difference and to wonder at it. The wonder is that men of personal abilities at the head of the national and State governments should consent to accept the salaries paid to them. But then comes the universal statement that the honors of the places held by them in a measure must make up for this vast difference in the pecuniary compensation.

BETTER THAN LYMPH.

The Pineapple as a Cure for Dyspepsia and Diphtheria.

Another possible triumph of medical science over disease is suggested by a paper read before the Detroit Medical Association recently on "Alimentation in Therapeutics," in which was announced an important discovery by Signor Vincente Marcano of Venezuela, in regard to the pineapple, says the Cleveland Leader. According to Signor Marcano there is in the common pineapple a ferment or principle, similar to pepsin, of such remarkable strength that the juice of a single pineapple will digest ten pounds of beef. If this proves true a new and important agent in the treatment of dyspepsia has been discovered.

As nearly all other diseases are directly influenced by the degree in which food can be assimilated, and as millions of people have imperfect digestion, the possibilities of this discovery are almost limitless, if it proves to be as represented. But even more striking was the further announcement in the same paper, written by a practical chemist, that the juice of the pineapple is a very active solvent of the membrane formed in diphtheria. The pineapple is a wholesome fruit without regard to these striking virtues ascribed to it, and experiments on the lines suggested will be easy and safe.

A Great Event

In one's life is the discovery of a remedy for some long-standing malady. The poison of **Scrofula** is in your blood. You inherited it from your ancestors. Will you transmit it to your offspring? In the great majority of cases, both Consumption and Catarrh originate in Scrofula. It is supposed to be the primary source of many other derangements of the body. Begin at once to cleanse your blood with the standard alterative,

Ayer's Sarsaparilla

"For several months I was troubled with scrofulous eruptions over the whole body. My appetite was bad, and my system so prostrated that I was unable to work. After trying several remedies in vain, I resolved to take Ayer's Sarsaparilla, and did so with such good effect that less than one bottle

Restored My Health

and strength. The rapidity of the cure astonished me, as I expected the process to be long and tedious."—Frederico Mariz Fernandes, Villa Nova de Gaya, Portugal.

"For many years I was a sufferer from scrofula, until about three years ago, when I began the use of Ayer's Sarsaparilla, since which the disease has entirely disappeared. A little child of mine, who was troubled with the same complaint, has also been cured by this medicine."—H. Brandt, Avoca, Nebr.

Ayer's Sarsaparilla

PREPARED BY
DR. J. C. AYER & CO., Lowell, Mass.
Sold by Druggists. $1, six $5. Worth $5 a bottle.

fe12 FrSuMo We&Wy 1y

RADWAY'S READY RELIEF.
THE GREAT CONQUEROR OF PAIN.
For internal and external use. Price 50c per bottle. Sold by Druggists. se1 1y SuMoWy