

## MISSOURI'S BIG CAVE.

Contains a Vast Amphitheater and a Winding River.

Herbert Bartlett, a mining engineer, has recently explored the cave in the Ozark Mountains in southern Missouri, which is beginning to attract the attention of travelers, and he gives a very interesting account of its marvels, which, he believes, will make it as famous in course of time as the Mammoth Cave. So difficult of access is the Ozark cave that no thorough exploration has yet been made, and Mr. Bartlett found himself baffled in his undertaking, as others were before him. Describing the first chamber, he says: "This grand amphitheater is almost circular in form, 700 feet in diameter, while the ceiling 225 feet above, appears to be held in place by immense columns of onyx and marble. Leading off into another direction from this central room is a lofty passageway. Following this the throne room is reached, and here in solitude is a grander throne than was ever built by man or designed by human brain. It stands alone in the middle of a chamber with ceilings 300 feet above, while from side to side the floor measures 200 feet, and from end to end 570 feet. The throne, a majestic stalagmite, formed of pure onyx and jasper, with markings of beryl, stands in the center. It is 36 feet across and 20 feet from front to back. It rises to a height of 65 feet. There is more to be found by following the various passages leading in every direction. Rooms spread out at the end of beautiful arched passageways. All are adorned with the same colored and white carvings. One passage has been traced for a distance of twelve miles in a southwest direction, and there is a current of air coming from the interior. It is thought that there are connections with the famous Barry County cave, thirty-five miles away. Nor is this immense cavern uninhabited. It has a flora and fauna peculiar to itself. In the grand amphitheater is to be found a plant or fungus blanched white by the darkness. In the long passageways leading toward the Barry County entrance are found bats that have evidently made their way in from the outside world. Some of these are enormous in size." Probably the most wonderful feature in the cave is the river which flows through it, of which Mr. Bartlett says: "This stream is fifty feet wide, flows very swiftly, and at a distance can be heard the roar of falls. No attempt has been made to explore it, as all that have seen it are afraid of the perils of the undertaking. The water is very cold, and it is believed that it finds its way, underground, to the White River. I hope that the geological survey of Missouri, under its present able management, will find time to look into the hidden wonders of this cave, and give a better account of them to the world."

## AFTER MANY YEARS.

An Interesting Story of Gettysburg Told By General Gordon.

In a recent lecture General Gordon, the famous Southern senator and orator, related a personal incident, which if given in a work of fiction would be discredited by every reader. It goes to prove that occurrences of real life are stranger even than the imaginings of the novelist's mind.

"At Gettysburg, while the fight was hottest," he said, "I noticed a handsome young Federal officer, whose bravery was conspicuous. After the battle had subsided I found this gallant soldier lying on the field. He was dying, and begged me to send a message to the Union lines. His wife had decided to share with him the fortunes of war, and was at the officers' quarters in the Federal army.

"I ordered my men to take the wounded officer to our camp and make him as comfortable as possible. Then I sent some men with a flag of truce to the Union line, with a message from the dying officer to his wife. Late that night the party returned, and the meeting of the dying husband and his young wife was the most affectionate scene that I ever witnessed.

"I was compelled to go elsewhere, but before I left the sorrowing couple I ascertained that the name of the Union officer was Major Barlow, of New York. I often thought of the sad accident, which made upon me one of the most vivid impressions that I received in the war. Shortly afterward a cousin of mine, whose name and initials were the same as mine, was killed in battle.

"The war closed. Ten years afterward I was with a distinguished gentleman in New York, who invited me to be present at a dinner he was to give that evening. Among the guests to whom I was introduced was a certain Major Barlow. I supposed he was a cousin or other relative of the man whom I had left dying on the field at Gettysburg with his devoted wife beside him.

"'Once knew a Major Barlow,' I said to my new acquaintance.

"'Once knew a General Gordon,' he answered. 'And the General Gordon whom I knew is also dead,' he continued.

"I started to tell him the story of the Major Barlow, whom I left dying on the field of Gettysburg, when he interrupted me, exclaiming:

"'My God, General Gordon, I am that man; but you were killed at Antietam.'

"'And I know you died at Gettysburg,' said I, 'for I saw you.'

"Mutual explanations followed. It seemed strange to me that the warmest friendship of my life should have been begun during those awful scenes of blood and carnage at Gettysburg. The simple service that I performed that day when I sent for that dying soldier's wife has made Major Barlow and his wife the dearest friends I have on earth, notwithstanding I wore the gray and he the blue."

## OLDIERS' QUEER PETS.

A Lion, Several Goats and a Snake Among Them.

In Algeria, North Africa, the officers of the Third Chasseurs d'Afrique have a pet lion which they took, when very young, from the African desert. It is a great pet and very

gentle. As a rule it lays outside the officers' mess on the veranda, and looks just like an artificial one. Many have been the visitors who took to flight on beholding his majesty rise to meet his guests. The lion by way of assuring them that he was harmless, or perhaps as a sign of his disapproval of their impolite actions, would generally send a gentle roar after them, which, instead of having the desired effect of recalling them, would make them increase their pace if it were possible to do so.

In the British Army several regiments have pets. For instance, the Twenty-third Welsh Fusiliers have a pet goat that marches in front of the regiment. The Seventy-fourth Highland Light Infantry, the Seventy-eighth Seaport Highlanders and other corps have pet deer that also march in front.

India the soldiers make many pets, such as monkeys, parrots, owls, crows, hawks and squirrels; but their greatest pet is the minot, a bird like the starling, but larger. This bird, after having his tongue split, will talk quite well, and will follow his master about constantly. Often it will follow a dragoon regiment for four or five miles on a field day, and will fly round and round the regiment until he finds his master, on whose shoulder he will settle, even though the horses are going almost at full gallop.

A trooper in the Cape Mounted Rifles in South Africa, had a green water snake for a pet, which would follow his master through the grass to the river and go in bathing with him. The trooper, who was an expert swimmer, would worry the snake by diving under water and coming up a dozen yards away. He fed it on frogs, raw meat and little fish. It slept in his jack boot at night. He, however, was not doomed to have it long, as before he had it quite five months a hawk carried it off before anybody could rescue the poor little thing.

Ladies also have their peculiar tastes for pets. A gentleman farmer's wife in Norfolk, England, made a pet of a pig. The animal lost its mother early, and the lady, taking pity on the poor little orphan, succeeded, with the aid of a feeding-bottle, in rearing it. It became a great pet, and would follow her about like a little dog. Its good qualities quite repaid her for her kindness. The pig certainly has many good points, and, according to Eugene Bodiehon, the great French traveler, who, after careful study of the porcine species, described it as an animal "qui a beaucoup d'esprit." Another singular pet was a frog, which was tamed by a young girl from the Dublin Mountains. It would come out from its bed of leaves at her approach to be fed with a strawberry or blackberry.

## STEAMBOAT IN SECTIONS.

Naval Craft of the French Army in Madagascar.

The capital of Madagascar, Tananarivo, is situated among the mountains of the interior, and is inaccessible, except by footpaths, the government having always prohibited the construction of roads by which artillery could be brought against the city. French armies are, however, not deterred by such trifling difficulties, and a campaign against Tananarivo has been carefully planned. As there are no roads, a river, the Ikonpa, which extends from the sea to the foot of the mountains, just below Tananarivo, is to be used as a road. This river is very shallow and obstructed by sand bars, and the problem to construct vessels capable of navigating it. This problem has been solved, so far as the gunboats are concerned, by building eight compound boats, or rather rafts. Each of these eight boats is divided longitudinally into six compartments, each compartment being watertight and independent, so that it can float alone, while, in case of need, any number of them can be bolted together side by side. These separate compartments, or shells, are of galvanized steel and very light, so that they can be easily transported overland, thrown into the water, and bolted together as they float. When in place, a deck is put over them, on which is placed, near the front, a small boiler of the locomotive type. To balance the weight of this, the engine is set near the rear end of the deck, and is connected directly to a light stern wheel, which serves for propulsion. An upper deck, on which are the pilot house, shields of steel plates for riflemen, and a light cannon, covers the whole extent of the lower deck. All the vulnerable parts of the craft are protected from musketry by steel shields. The whole affair, with stores, crew, and armament, draws less than fifteen inches of water. To provide for passing sand bars, a powerful turbine pump is placed at the very front of the vessel, with a suction pipe which can be lowered as required to any distance from the surface of the water. On reaching a sand bar this suction pump is run out, and the turbine set at work. The sand, mixed with water, is sucked out with great rapidity from in front of the craft, and thrown by a discharge pipe, to one side, and a passage through the bar is in this way soon made.

## A Shower of Black Ants.

The warm, thunderous state of the atmosphere, Wednesday evening, presaged a heavy downpour of rain in the city and vicinity, but this expectation was not realized, and the rain passed off with a slight shower.

Instead of the rain a shower of another kind resulted, which is one of the most curious visitations in the history of the city. On the sidewalks, in the roads, upon the roofs, and the inside of the houses there was seen numbers of large black ants crawling about. They were found as plentiful in the outskirts of the city as on the main streets, and from the fact that some of these insects have wings while others have dropped or shed them, it is natural to conclude that they have migrated from some district to the south of the province, and have come to stay.

At Howell's condensery they stopped to talk with some workmen who were repairing the pump at the artesian well. It will be remembered by readers of this paper that at the time this well was sunk an account was given of the striking of a subterranean stream at a depth of 300 feet, the volume of which could not be ascertained except that soundings showed it to be of considerable depth. The stream and its probable size were the subjects of discussion among the little group at the well.

## LIGHTS THE WORLD.

Brush's Patents of Electric Lighting.

The streets of the biggest cities of every continent blaze at midnight through the genius of Charles F. Brush. Still the world knows but little about him. With all his genius he is modest in the extreme. He early adopted the policy of keeping out of print. He has contributed little to scientific journals, and the world knows him only through his work. It has no idea of the man, and there are few who appreciate his wonderful character and the wide extent of his achievements. His big mansion on Euclid avenue, Cleveland, is one of the finest houses in the United States and one of the most comfortable homes. It is located in the best part of the avenue, which is one of the finest streets in the world, and it is surrounded by seven acres of magnificent lawn, where the land is so valuable you have to carpet it with greenbacks to buy it.



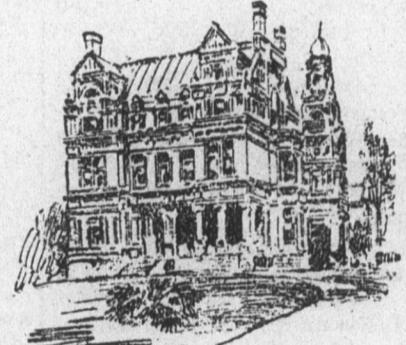
CHARLES F. BRUSH.

There are tons of storage batteries in the house, and the power which charges these batteries with electricity is an enormous windmill which he has erected in the rear. Every breeze that blows produces light for the house, and the batteries are so large that if there should be a dead calm for a whole week they would still contain enough electricity to run all the lights.

"I was always experimenting with something, and while I was in the High School in Cleveland I made microscopes and telescopes, grinding the lenses and turning out some very fair instruments."

"When did you first appreciate that your electric light might have a commercial value?"

"I think it was about 1876," replied Mr. Brush. "It was at this time that I completed my first dynamo-electric machine. I showed this at Philadelphia the next year at the Franklin Institute. The first arc lighting machines had to have one dynamo to each light. My invention was the first that proposed a series of arc lights working from one dynamo, and it was upon this that the street lighting and all the arc lighting systems of the present day are based."



BRUSH'S RESIDENCE.

"Will we ever get electricity directly from coal?"

"I think so," replied Mr. Brush. "In fact I have already gotten it, but not in such a way as to make the invention commercially profitable. It is now twenty years since I succeeded in getting electricity directly from coal. It was in 1874. The fields of invention are vast. We stand just on the threshold, and there will be new inventions as long as man has mind to create and the will to investigate the great forces of nature and the possibilities of their combination."

"The electric force is still to a large extent a secret from us all. Of late years there have been few fundamental inventions in electric lighting. There have been many improvements and modifications of the old ones. The light is steadily being made better, but it is the same light just as, for instance, we have had locomotives drawing trains ever since we were born, but the locomotive of to-day is a far different machine from that of forty years ago. Still it embodies the same fundamental principles."

"Where is the chief work being done in electricity to-day?"

"It is in the field of thermo-electricity, or heat electricity. It is now thought, you know, that all light and heat are produced by electrical force, and it is in these branches that the best work is now being done."

## ARTESIAN WELL FISHING.

Curious Specimens Caught on a Hook in Indiana.

Thomas Mould and Editor E. L. Roys are the heroes of a fishing story beside which the stories of ordinary fishermen sink into insignificance. Both are known as ardent devotees of Izaak Walton, and whenever their business permits they are usually found in pursuit of the gamey black bass or the voracious pickerel. On Saturday they visited Glenmore together. The fish were not biting with any enthusiasm, and about 4 o'clock they started for home.

At Howell's condensery they stopped to talk with some workmen who were repairing the pump at the artesian well. It will be remembered by readers of this paper that at the time this well was sunk an account was given of the striking of a subterranean stream at a depth of 300 feet, the volume of which could not be ascertained except that soundings showed it to be of considerable depth. The stream and its probable size were the subjects of discussion among the little group at the well.

and somebody wondered if it contained any fish.

A bright idea occurred to Messrs. Mould and Roys. Each had in his basket a long trolling line, and by lifting them a line long enough to reach easily to the bottom of the well was formed. Amid the good natured "jolling" of the bystanders the lines were rigged and a hook attached. It was baited with a big "night walker" fishworm and lowered 298 feet through the six-inch hole. The distance had been carefully measured off on the line, to which heavy sinker had been attached, and the hook fastened a short distance above to a stout piece of line. Everybody laughed except Mr. Roys as Mr. Mould carefully lowered the line and waited anxiously for the little tug at the bait which brings joy to the heart of the fisherman.

After a few minutes the expression on Tom's face became one of rapt attention. "I believe I've got a bite," he said. A moment later he began to pull in the line rapidly hand over hand. "I've got something," he said, and as everybody began to gather about the well he drew out a fish. It was about half a pound in weight and of the eyeless species which are sometimes found in the waters of caverns. The fish was nearly a foot long, shaped something like a perch, and its struggles as it lay upon the ground showed that it was game to the backbone. Unlike fish which dwell in waters on the earth's surface and which have dark backs and light colored or white bellies, this fish was a uniform color of light gray. It had very small scales, and where the eyes might be expected to exist there were slight indentations as of rudimentary eyes.

When the excitement attending the capture had died away the hook was baited again and the line lowered. Editor Roys took this time, and after waiting for about ten minutes, he drew to the surface another of the fish, a trifler larger than the first one. Five fish were caught altogether, the largest of which weighed a plumb pound and a half. One fish was brought part of the way to the top, but loosened itself from the hook and escaped. Mr. Mould, who had hold of the line at the time, says it was the largest by far of any that fastened themselves on the hook, and he's positive that the reason he was unable to land his fish was that it was too big to pass through the well, which is only six inches in diameter.

The singular appearance of these fish and the remarkable manner in which they were captured made them objects of curiosity to the persons to whom they were shown. Reference to the encyclopedias show that these fish are remarkable, aside from their appearance, in that they are viviparous, bringing forth their young alive and not depositing eggs, after the manner of most other fish. They have rudiments of eyes, but no optic nerve, and are, therefore, incapable of being affected by the most intense light. Those who tasted them say they are of excellent flavor, but rather too plentifully supplied with bones. —Goshen (Ind.) Republican.

## To Be in Good Society.

High moral character and education, whether it be of book lore or that of observation and good example, polish of manner and good habits, are the requisites of good society. One whose ideas of social equality were rather democratic than exclusive was heard to remark: "One man is born just as good as another and a great deal better than some." Unless the son of a gentleman be a gentleman he is no more entitled to the name suggesting refinement than a man is entitled to the name of General whose father before him was a General. One must win his own laurels or go uncrowned.

Birth to a marked degree is an accident, and those who are considered to be well born are oftentimes the most objectionable elements of society and the most dangerous associates. One need but watch closely the daily record of those on both sides of the Atlantic, whose birth gives them prestige in society, to prove that education and cultivation of high morals and manners go further toward making refined society than all the good or blue blood that ever flowed through the veins of royalty and the nobility. Of course, it would be the height of absurdity to argue that all men are born equal and would be as illogical to argue against the superiority of blooded animals of the race course over the ordinary draft horse. However, the nobility of culture and refinement should have precedence over the nobility of birth and rank.

## Japan's First Modern Warship.

A contemporary notes that the first armed ship of modern design owned by the Japanese was an old American vessel, and Japan's first Admiral was an American officer. The ship was the ram Stonewall, which the United States captured from the Confederates in 1865 at Havana, and which was sold to Japan in 1868, being taken to Yokohama via the Straits of Magellan by Captain George Brown, of the United States Navy.

The first Japanese Admiral was Walter Grinnell, appointed soon after that at a salary of \$14,000 per year for three years, while he was an ensign in the United States Navy stationed at Hilo.

To this we may add that the old ram lay for many years in Yokosuka harbor in a dismantled and greatly dilapidated state, till at length, about the year 1889, she was taken up to Yokohama, beached on the flats off the fort at Kanagawa and there broken up.

## Fooled the Ameer.

It seems that young Mr. Curzon, who married Miss Leiter, is not above a joke. A short time ago, when he was in Afghanistan, he was so desirous of making an impression on the Ameer that he rigged himself up in the regalia of a general. The trick worked to a charm, and the Ameer, seeing the glittering and imposing uniform, supposed that the young man was a distinguished warrior. The result was that Mr. Curzon received the most marked homage, which he graciously accepted, fortunately getting out of the country before the imposition was discovered.

## NOTES AND COMMENTS.

THERE are at present 850 electric railways in the United States, operating over 9,000 miles of track, and 28,000 cars, representing a capital investment of over \$400,000,000.

SHANGHAI, China, papers report a ghastly incident at a recent execution. Just at the moment of the execution the victim's hands nervously grasped the garment of the executioner and held on after decapitation. Before the grip could be loosened the executioner died of fright.

THREE-WHEELED vehicles are the rage. The latest carriage invention is a three-wheel affair. The newest cycle has the same number of wheels. Each seats two persons and threatens to unseat the reason of a lot of people who already have too much to do with the little tug at the bait which brings joy to the heart of the fisherman.

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