18

tour of Mexico. "Nonsense," said Eoyal in a blast of in-dignation. "Give us a gun! Give me any-thing! I'll be hanged it we'll be put to fight by a pack of curs!" As he spoke the thing! I'll be hanged it we'll be put to flight by a pack of curs!" As he spoke the sound of axes against the high fence re-sounded ominoualy within the enclosure. "Only as a last resort," said Sergeant Willawig coolly to the terrified inventor. "We must wait for Mr. Vanderlyn. It is his due. And he may bring relief. Atany rate he brings \$50,000 in gold in case of need. We must wait for him. He is due at 10." at 10.

Professor Wilder tried to look calm. His life's work, nay, his life's glory might at any moment be shattered. The huge air-ship rested on her six stills as unconsciously as if there was no boodlums under the guise of law seeking its annihilation. The air was clear and still; not a leaf stirred. was clear and still; not a leaf stillred. Sounds dropped crystallized from the tongue, so pure the atmosphere. Oaths elicked from without upon the tympaoums of those within, and came like sudden shocks of a galvanic current. "Open in the name of the law, or we'll better each blank walk down."

batter your blank walls down!" "Have you got an extra wire?" asked the Sergeant, turning sharply upon the bewil-

dered foreman. "A couple of miles of 'em, I reckon." "Then let's have them quick! Have your men tack them up two and four feet respec-tively from the ground upon that fence, and turn on the current, I'll wager they won't actual "

come In. There were 12 men under the foreman in the workshop whence the airship had originated. The shop contained a powerful dynamo, which had filled the airship's storage batteries. At the Sergeant's command the inclosure was encircled with this mysterious all-powerful protector. Men have enuse to fear a dead wire more than an armed desperado. The axes resounded. There was a crash, and an opening large enough to admit a man yawned in upon the airship suddenly. As suddenly there came a shriek, a dull thud. The wires, carrying a shrick, a dull thud. The wires, carrying 500 voits alternating current as an experi-mental charge had done their bidding. Sur-prised, another man from without touched the offending wire with his forefinger and dropped in convulsions. The crowd fell back with horror, with execution. They began to growl like wild beasts foiled. It will they can be did they cot within. They fell would go hard if they got within. They fell back and consulted. The besieged waited

and drew breath. "How goes the fun?" asked Jack Hardy, leisurely descending from the car to the scene, in his spotless dress. The Sergeant was inclined to sneer at him, but instinctively felt the difference between supreme sancfroid and cowardice.

But how is Vanderlyn to get in through this mob?" asked Jack, critically looking about him. Mr. Frederick Ball, the astronomical tu-

tor, pale as the under side of a beech leaf, took up the word.

"He can't get in. Let us go now while we may. Think of my precious instruments.



Prof. Wilder was about heartily to acquiesce in this sentiment, when Sergeant Will-tig turned upon them.

"It you gentlemen are frightened by this little thing, what will become of you when you encounter the horrors of the most terri-ble country that has never been explored? We will stay here in spite of 1,000 such hoodlums-ave, and protect ourselves, too, like men." His eyes flashed. Here stood like men." the essence of arctic heroism in this man's contempt of danger, his dauntless discipline and obedience. "I'm with you," said Royal Sterne,

and was puffing away at a Regalia, as much at his case as if he were contemplating a tour of Mexico. The way at a Regalia, as much 'Don't do that! The machine's fast. There's dynamos enough to finish her. She'll bust fast enough, you know, when she's ready to do it!" proceeded Jack. This statement was greeted with a round of tremendous applause. The mob cheered and cheered again. Mr. Vanderlyn did not

recognize Jack. He drew back haughtily when the young fellow got near him. But he recognized the daring eyes when the ir-responsible fellow clapped him on the shoulder familarly, and cried out: "The dynamos are working, sir! Air-ship's in there, all fast! Shake!"

There was time for a swift whisper, while the crowd hooted about them. The clever merchant quickly took in the situation. He soon had the leaders by the ears, and a suggestion to wet their whistles, together with a crisp \$50 bill, had the effect of making the crowd melt away like snow before the sun. Then Jack took Mr. Vanderlyn inside to his waiting comrades. "You shall be treasurer, Mr. Hardy, in

recognition of your presence of mind," said the merchantheartily. He unloaded pourd after pound of British, American and Rus-sian gold, and delivered it into the keeping of the real estate agent. In case the expedition failed or fell upon strange sol there was gold enough to insure a safe re-turn from any point, so far as gold could avail.

But now the hour of starting had struck In awe and wonder the mechanics of the shop stood and stared around this vessel, so soon to wing her gilded way through the air. Even they did not know where she was bound. She was the first vessel of her kind to go where her designer should de-

cree. The six stood silent for a moment in the padded car. "It looks a little different from the old Pullman smoker," said Royal with a light laugh, as he tossed his curls back and touched the woollen ceiling with his crown.

Each man looked sober enough. "Is these anything else I can do for you gentlemen?" asked the merchant with a voice trembling with real feeling. "As soon as you start you are heroes! If you come back successful you shall live in the

pages of history forever." Sergeant Willwig, who had inwardly wept, as he had buried many a comrade dead of starvation and cold in the hopeless disappointment of Artic effort, looked as resolved as the trip-hammer when it is about to crunch a mass of cold steel. Professor Wilder was almost beside himself with the excitement of achievement. The tutor thought of his mother, who had

prayed with him vainly not to go. The two young men thought of nothing but the unique venture. They were not ignorantly brave, but still by the very limitations of their knowledge on this special subject they were incarable of appreciating their undertaking. They did not think about the possibilities of accident, or breakage to the

vessel upon which they were to travel. The words careless enthusiasm are tame terms to apply to their confidence in overcoming the unexplored 16,000 square miles about the

pole "Well, I suppose we might as well be off," said the Sergeant, as naturally as possible. "I will take charge of this expedition as soon as you go ashore, Mr. Vanderlyn.

Farewells were soon said. Men do not weep when they part, even though they go to certain death. Prof. Wilder took his position in the engine room and started his four lifting screws lightly. The other four men stood upon the platform above the car and waved their hats. The mechanics looked

and waved their hats. The mechanics looked up with gaping mouths. Instinctively, they stood bare-headed. "Is there anything else?" shouted Mr. Vanderlyn. "There ought to be the most distinguisded crowd in the Union to see you off. It's a shame! We'll do it better when you come back!" He raised his hat. "God keep them safe!" he added to himself under his breath. under his breath

Faster and faster the lifting wheels whirled. There was an uneasy motion of the vast vessel, as if she were deciding whether to obey the familiar laws of God,

or the newer laws of man. But man prevailed. The screws whirled with a pene-trating whizz. She starts! A wild hurrah goes up from the slowly receding earth. The vessel conquers 10, 20, 50 feet! Now, vou men!

"Hold!" cried Sergeant Wiltwig. "Sir!" he shouted, leaning far over the turned its attention to the study of the ail and looking eagerly hundred feet below him. "Sir! In five months send for ns! But not before!" "Aye, aye! I will!" came indistinctly from the carth. There was an instantaneou ooising in the silent air. Then came a

PITTSBURG , DISPATCH SUNDAY APRIL 10. 1892

THE heory seems to have been upset by the work of the Albatross. The naturalists of this vessel have found that the forms of sea FLOOR OF THE OCEAN. life in the upper portion of the coras waters may descend to a depth of 1,200 feet or so from the surface, but there then succeeds a barren zone which continues to within 360 to 300 feet from the bottom where the deep sea Bits of Knowledge Scraped As a rule, these deep sea animals have no eyes, showing that they have no need of them. The fact that they are subjected to enormous pressure, is shown by many of From Thousands of Feet Below the Waves. them bursting open when brought to the surface. Some of them have very bright colors, and they are found most abundantly ANIMALS WITHOUT EYES. colors, and they are found most abundantly along the courses of the great currents, show-ing that these rivers in the ocean bring a large amount of food for the deep sea fauna. And Accustomed to Such Pressure Carlons Incidents of the Work. That They Burst When Raised. A narrative of the minor and curious in cidents of deep sea exploration would make cidents of deep sca exploration would make an interesting story. It was a distressing, though rather ludicrons mishap, that befell Dr. Hansen, who unfortunately wrote his labels and description of the sponges col-lected by the Norwegian North Atlantic ex-pedition in fugitive ink, and the records of his work became indecipherable. One ther-FIVE MILES OF SOLID SALT WATER. Sediment of Great Eivers Carried 600 Miles From the Coasts. his work became indecipherable. One ther-mometer now in use registers the tempera-ture at any desired depth, by means of a weight which is sent down the line at the depth required, and striking the thermome-ter inverts it. Awhile ago a small flat fish was investigating the instrument at a depth of 1,200 fect, when the weight descended and caught the animal. RAPID PROGRESS IN OCEANOGRAPHY WRITTEN FOR THE DISPATCE. A few years ago, when the steamer Ga elle was dredging the depths of the South-These expeditions have demonstrated the ern Atlantic, many hundreds of miles from interesting fact that the knowledge of deep sea deposits has now advanced so far that experts at home, from the examination of a land, the scientific staff was greatly surprised to haul up from the sea bottom many specimen, can tell approximately at what depth, and in what latitude it was taken grains of quartz. These heavy deposits could not have been carried from the land, and, with certain reservations, can roughly determine the longitude. To give an illus-tration or two—in tropical regions distant from land, and at a depth of 18,000 feet, the for the ship was far north of the track of the Antarctic icebergs. It was believed this quartz in the middle of the ocean might deposit seems without exception to be a clay arising from the decomposition of vol-canic matter. In the greatest depths there is hardly a trace of carbonate of lime, but at afford another proof that igneous or eruptive rocks, now and then, are thrust by subterranean action up through the deposits on the ocean bottom. Another explanation of these quartz finds was advanced. Suppose depths of 12,000 feet more than half of the deposits consist of this deposit. Within 100 to 150 miles of land all the pelagic organisms are more or less completely hida ship with sand ballast was lost in the middle of the ocean. In that event its millions of quartz grains would be sifted over the den by the large amount of coast or river

IDEAL FIGHTER Lord Wolseley Sets Up Forrest as Model for the Soldier. COULDN'T DRILL A COMPANY And Couldn't Write an Order, but He Knew How to Lead His Men. LEAVES FROM HIS WAR RECORD IWRITTEN FOR THE DISPATCH.1 The officer of regular troops intrusted with the duty of quickly raising levies for immediate war service is often too prone to think that his one great endeavor should be

to "set them up" and so instruct them in drill as to make them look as much like regulars as possible. As a matter of fact, he almost invariably fails to accomplish this aim, and in his well-meant efforts too often robs them of their only good qualityin a military point of view, I mean-the fearless dash and go so often possessed by undiciplined fighting men. Like the wellmeaning missionary, who, in persuading the heathen to believe no longer in their idols, robs them of their only spiritual faith

without being able to induce them to accept Christianity in its place, the result is usually disastrous in both cases. The troops, especially the horse, raised by Monmouth during his rebellion, are a very good illustration of what I mean.

General N. B. Forrest, of whom I wrote a few days ago, never fell into any such error. He had no knowledge of military science nor of military history to teach him how he should act, what objective he should aim at, and what plans he should make to secure it. He was entirely ignorant of what other Generals in previous wars had done under very similar circumstances. This was certainly # great misfortune for him, and a serious drawback to his public

> usefulness. He Never Got in a Panic

But what he lacked in book lore, was, to large extent, compensated for by the soundness of his judgment upon all occasions, and by his power of thinking and reasoning with great rapidity under fire, and under all circumstances of surrounding peril or of great mental or bodily fatigue. Panic found no resting place in that calm brain of his, and no dangers, no risks ap-palled that dauntless spirit. Inspired with true military instincts, he was, most verily, nature's soldier. His force was largely composed of wild and reckless men, who all looked to him as their master, their leader, and over whom

their master, their leader, and over whom he had obtained the most complete control. He possessed that rare tact—unlearnable from books—which enabled him not only effectively to control these fiery, turbulent spirits, but to attach them to him person-ally "with hooks of steel." In him they recognized not only the daring, able and successful leader, but also the commanding officer who would not hesitate to punish with severity when he deemed punishment necessary. ecessary. He thoroughly understood the nature and

disposition of those he had to deal with, their strong and their weak points, what they could and could not accomplish. He never ventured to hamper their ireedom of action by any sort of stiff barrack-yard drill, or to embarrass it by any precon-ceived notions of what a soldier should look like. They were essentially irregulars by nature, and he never attempted to rob them of that character.

### They Knew He Meant Business,

But the most volcanic spirit among them felt he must bow before the superior iron will of the determined man who led them. There was a something about the dark-gray eye of Forrest which warned his subordinates he was not to be trifled with, and would stand no uonsense from either friend or foe. He was essentially a practical man

with what he had already achieved, and begged him to fall back at once with the stores and prisoners he had taken before his retreat could be interfered with. They little realized the fiery temper or the military genius of their new commander, upon whom they pressed this advice. This was the first time his new force, demoralized by previous failures, had seen him in action. They were not yet infected with the fire which burned within him, and he had not yet had time or opportunity to eatch hald yet had time or opportunity to eatch hold of their imagination or their spirit. They had no enthusiasm for this stranger, nor any great confidence in his ability as a

General.

Forced Them to Belleve in Him. IT MAY COOL THE FRENCHMAN'S HEAD

He was, however, determined they should believe in him before the day was out, as his own regiment had long done. His fur-ther operations that day showed a rare mix-ture of military skill and of what is known ORRESPONDENCE OF THE DISPATCH. PARIS, March 30.-I have never failed to go out of my way to get even a passing by our American cousins as "bluff," and led glimpse of a fine horse; but it has been the to the surrender of the camps attacked. The General in command and 1,700 infantry horse as a splendid example of fire and were made prisoners, a vast amount of stores were burned, and four field guns, 600 horses, grace, of strength and gentleness, that has interested me. That I have gone out of my many wagons and a large quantity of arms, ammunition, clothing and food were taken. It was a brilliant success, and as it was his way to study him as an article of diet is all due to the French chit-chat I have been hearing. For the last month horse meat as irst great foray it at once established his reputation as a partisan and as a daring cavalry leader to be dreaded by all com-manders of Federal posts and stations a topic of Parisian conversation has rivaled the vagaries of the German Emperor, the Catholic question, and the Anarchists' threats to blow up Paris with dynamite.

manders of Federal posts and stations within his sphere of action. His raids upon the enemy's lines of com-munication were frequent and most success-ful. No rivers stopped him, and any de-tailed accounts of the railways and valu-able military stores be destroyed and the fortified posts he captured would alone fill a volume. His pursuit of Colonel Streight's cavalry column for four days and nights in 1863 reads like an exciting novel. It ended in his saving the great arsenal and workshops of Selina, and in the capture of Streight and 1.700 of his men by the 600 I wouldn't dare say how many times I have been told that, according to the statistics of 1891, there are 194 shops in this city where horse meat is sold, and that in that year there were dealt out to consumers 21,231 horses, 61 mules and 275 asses. I have had it repeated to me at half the dinner tables at which I have sat that these figures meant that the Parisian stomach had made an effort in 1891 to digest 4,697,990 kilos (10,335,578 pounds) of horse, ass and

Streight and 1,700 of his men by the 600 troopers he then had with him. He took part in General Bragg's retreat from Tennessee, and one "day, being with the tail of the rear guard, an excited old lady rushed from her house and, upbraiding mule. This conversation has not all been sta-tistical. It has been enlivened by personal lady rushed from her house and, upbraiding him, urged him to turn round and fight. As he took no notice of her entreaties, she shook her fist at him and cried out: "Oh, you big, cowardly rascal, I only wish old Forrest was here; he'd make you fight!" Such was then the public estimation in which he was held. reminiscences of the Siege of Paris, when of the best patronized of the street bawkers was he who cried "cheval" and "mulet."

What He Did With a New Force.

But, as we sometimes find in all armies, his commander in chief did not agree with this popular opinion of his merits and ability as a soldier: for, later in the autumn, he was superseded by a very inferior man as a eavalry leader. He forthwith resigned his commission; but, instead of accepting his resignation, the Central Government pro-moted him to the rank of Major General, assigned him to the command of North Mississippi and West Tennessee. There he had to raise, organize, arm and equip an entirely new force. With it he

Dog Liver a la Maitre d' Hotel. Cat Croquettes, Mayonnaise Dressing. did great things in 1864, against large num-bers of well-armed and splendidly-equipped Eederal cavalry. The cavalry force of about 7,000 men under General Sooy Smith, Fillet of Dog, Tomato Sauce. Civet of Cat. with Mushrooms. Dog Cutlets with Green Peas. Ragout of Rats, Robert Sauce. about 7,000 men under General Sooy Smith, and belonging to Sherman's army, he com-pletely defeated in a fairly open and prairie country suited for the action of regular cav-alry, had either side possessed any. General Sherman officially described Smith's division as composed of "the best and most experi-enced troops in the service." This part of the campaign had been expressly designed by that General with a view to the capture or that General with a view to the capture or destruction of Forrest's force. But Smith was no match for his opponent, who out-generaled him, and the result was the reverse of what Sherman had intended and anticipated. Forrest's force during these perations numbered about 3,000 men, onehalf of whom were raw and badly-armed recruits. General Grant says: "Smith's command was nearly double that of Forrest, but not equal man to man, for lack of a successful experience such as Forrest's men had had." And yet they were, as soldiers went in this war, well drilled and comtheir religious festivals.

manded by a regular officer, whereas Forrest's men knew little more of drill than their General, who, his friends alleged, could not at any time have drilled a con pany.

Sherman's Efforts to Destroy Him A small brigade of about 700 Kentucky infantry was now handed over to him, but

The average is 10 cents a pound, half, and in some cases less than half, the price of beef. As to the meat I bought, I ate it. THE MEAT OF PARIS. However it is not a subject on which I cars to write. There are experiences in life which are best discussed at a distance of years. My dinner on cheval a la Geoffrey Saint-Hilaire is one of mine. Not that the meat was not savory. It is the idea. Many of the French working people will not touch horseneat because they believe that dis-eased animals are used. This is quite false. The police restrictions are severe, and every animal passes under an inspector who re-However it is not a subject on which I care An Army of Poor Would Suffer if Horse Flesh Were Not Used. FIRST USED DURING THE SIEGE. The Scientists Justify the Custom in animal passes under an inspector, who re-jects him if there are any signs of any dis-Sound Arguments.

### ease or if he is excessively lean. The Supply for the Abaftoirs.

It must not be imagined that the horses used are raised for the markets. The supply is from animals for one reason or an-other unfit for work. Paris alone furnishes large numbers. Every day one sees horses slipping and falling on the glassy asphalt. f they do not break a leg out and out they frequently sustain a rupture or strain which makes it necessary to kill them at once. The owner is glad enough to sell the dead The owner is giad enough to sell the dead animal, which ordinarily is in capital con-dition and makes most juicy steak. Those whose injuries are not fatal perhaps might be sold for \$3 or \$4, to be used in hacks, but when they will bring \$10 to \$20 at the butcher's the question is quickly settled. Agents are kept constantly in the country for 100 leavnes around Paris looking no

Agents are sept constantly in the country for 100 leagues around Paris looking up broken-down horses. There are two abattoirs in the city where they are butchered. At the larger the number killed per day is never less than 50. number killed per day is never less than 50. It is a dreary place to see, situated within a stone's throw of the famous factory of Gobelin tapestries. Everything around the buildings fills one with disgust. The place of execution is a chamber of horrors. I confess I have looked into the revolutionary prisons of Paris and upon the guillotine with less shivering than I felt in this place. The animals are led in one by one. A mak of animals are led in one by one. A mask of leather is fitted over the victim's head covering the eves. In this mask just over the center of the forehead is a movable nail of iron. When it is adjusted the executioner approaches, and with a heavy hammer strikes a quick blow. The animal immediately falls dead.

### Like Witnessing an Execution

When I visited the abattoir they were have heard vivid descriptions of groups fitting the death mask over the head of a noble Perchon which that morning had of soldiers roasting whole the carcass of some fine steed which had succumbed to fallen in an omnibus and sustained a mortal wound. I had the comforting fancy that I German bullets or siege privations. My stock of French curiosities has been inhad been behind the poor fellow when he went down since such an incident had marked the ride I had taken on the omnicreased by the following novel menu accurately presented in 1870 at a banquet bus that morning. I did not stay to see the dreadful business out. It was too much like given by the members of a society advocating the eating of unusual meats. Here it is, assisting at the execution of a friend.

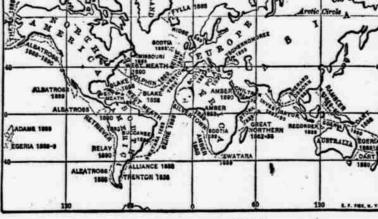
The great reason for encouraging the use of horsement is economic. It gives a per-fectly healthful and nutritions food to the poor at a very low price. The matter is most important in Paris where wages are low and prices high. It hids fair to be more mportant, as the new tariff is already begin-

ning to bring up the price of meat. But Paris is not the only city which has multitudes of inhabitants who are insufficiently fed. Every cisy has them and it is a question of vital importance to furnish them food at the lowest cost. Philanthro-pists in the United States could do much worse than to study whether it would not be worth their while to begin a propaganda

## in favor of horsement.

Among the guests who ate through this May Make Frenchmen Steadier. dinner was the famous scientist, de Quatre-There is another argument for the prace There is another argument for the prac-tice, one for the Society for the Prevention of Cruelty to Animals, to consider. The misery of broken down, lame, worn out horses which are bought for a song by poor hucksters, teamsters, jacks-of-all trades, and beaten and starved through a miserable old age is one of the most pitful facts of the fages. Once or twice I have encountered a live hippophagist who has loaded me with historical facts, contending that the prejudice against horse meat is due in the Orient to the Koran which forbids Mohammedans to use the meat, and in Europe to the early Christian priests who forbade it to their old age is one of the most pitiful facts of the horse race. If when a horse is worn out he could be turned promptly into plump saus-age he certainly would be saved great suffer-ing. No doubt if he had a voice in decid-ing his fate he would raise it emphatically in favor of the sausage. If we could know the effect on a race of binombars we might hear still works. flocks because the Tentons and Celts sacri-ficed it to their gods and ate the flesh at Meat Seasoned With Cannon Fowder.

This same propagandist has proved to me that in Germany, Austria, Holland and Russia the horse had long been an article of diet, and he had furnished me a most enterhippophagy we might have still another argument in favor of it. France ought soon to be able to speculate on that, for the practaining account of the use made of this meat in Napoleon's wars, espetice is increasing rapidly in all her large cities. If we are what we eat, of this meat in Napoleon's wars, espe-cially of that notable time when after the battle of Essling, the French troops were shut up on an island in the Danube with nothing to eat and the horses were ordered as some wise men argue, will France acquire vigor, persistency, patience, steadiness, in proportion as she eats the



### DEEP SEA RESEARCH, 1888-'90.

This map gives the names of vessels engaged in deep sea research and indicates, by proken lines, the location and extent of their surveys. Many of these vessels are wan ships commissioned to undertake scientific work, particularly deep sea soundings. Among these vessels are the Albatross and Blake, of our Fish Commission, and the Adams, Dol phin, Swatara, Trenton and Alliance, of our navy. The Egeria, Retriever, Westmeath, Investigator and some other vessels are English.

sea bottom; which goes to show that seidebris with which they are mixed. entific men cannot always, with safety, at-Facts About Enormous Depths.

tribute to mighty phenomena the accidental The Dolphin found a depth of 20,646 feet south of the Azores, which was the greatest depth discovered during its long cruise. The Seine discovered that the now famous Trinidad depression (over 20,000 feet) was The map shows the wonderful interest the world is now taking in deep sea exploration. The science of oceanography is still not so extensive as it is represented on the maps. The Pola's investigations in the young and, strangely enough, it was not Eastern Mediterranean resulted in record-ing the depth of 13,316 feet, the greatest naturalists but engineers who first began to explore the ocean depths. It was when the depth yet found there, and the great de-pression in this sea must, therefore, be first submarine cable between Europe and America was laid that the scientific world moved quite a way east from its former central position on the maps. The Black Sea

planting himself beside his chief. "I'm in this, too," Jack Hardy spoke leisurely. He was really the coolest one "Ten sets of brains can beat a present. ndred pairs of hands. That's my creed. But they are up to some new deviltry out there. They are much too quiet. Whew! A stone!" He pulled the tutor to one side, just as a hig stone whizzed past them. It was now almost time for Mr. Vander-

lyn to appear. His was to be the last word of encouragement, the last wave of the hand. It had been a severe task for the hand, it had oeen a severe task for the millionaire to refrain from speaking of the enterprise, so strong had his faith in it grown. But he controlled himself. If the expedition and the airship failed he would not be held responsible for a disaster, and if it succeeded cloriously, his very reticence would ultimately redound to his honor. His movements could not be wholly concealed. His friendliness toward Professor Wilder in the lawsuit had become known. His His business friends came so near the truth as to suppose he was backing up an airship company. His speculations were respected. Mr.

Vanderlyn, they argued, would not go into the airships, the most precarious investment maginable, not only liable to a shrinkage, at to a learful drop, an utter fall, unless he were sure that the aerial ship was to become a more practicable means of trans portation than the railroad or the steamship

At this crisis Jack Hardy had a bright idea. It was now after 10 o'clock. Their patron was due. The "Aeropole" was ready to useend at a moment's notice. The electric engines were in perfect order, Her sowerful aluminum fan-like screws were imatient to make their hundreds of revoluons a minute. Every detail was attended to, and the car was complete. The ballast of water had been added with experimental accuracy. This intelligent exponent of the machinist's highest genius stood her ground like a horse untethered. She was contined to no tracks, deterred by no frictions, troubled by no fear of collisions. There she stood, the mistress of the ether,

rendy to take possession of her rightful kingdom at the slightest touch upon her motal heart.

"I'll tell you-Kick me out, boys, as a traitor!" said Jack. "They'll believe it, outside there. I'll talk to them about ivonmos-all the same's dynamite to them! 'il get a chance at Mr. Vanderlyn and put him up to saying a thing or two and he'll set the crowd up the beer, and then he'll

"No, let me go," said Royal Sterne, gerly, "T've dealt with Indians on the engerly, "I've dealt with Indians on the plains. I can manage such a tough lot tior than you can.

"It runs in our family to run into dan-rer," said Jack Hardy, quietly. "We're always the ones. We have to be. I'll go,

Off with his fine-fitting coat! It took but a moment. Dishevel and tear him a little -there's a minute more! Now, a great out-ery was raised within; the current was cut of from the protecting wires, and quickly enough, to the astonishment of the outsiders, a young man shot over the high frace and landed among them, all but bleedsiders, P.

At this moment Mr. Vanderlyn drove up in an open carriage, astonished at the unusual sight, but no one paid any atten-tion to him in the moment of this new di-

"Oh, gentlemen, protect a poor man!" groaned Jack Hardy. "They've shot me "An' that' us will, sure!" cried the

"An that us will, sure: cited the roughest of the assaulting party. "I'm nearly murdered," continued Jack, rubbing his shoulder, and edging toward Mr. Vanderlyn, who began to be greatly

troubled. The crowd was now nearly unmanageable.



In Five Months!

the air ship, with a leap, shot ahead. Where

could that speed stop? Twenty-five! Fifty! A hundred! Two hundred miles an hour

she sped. Faster than the eagle's flight; faster than the heart of the homing pigeon. Had it not been for the stout railing the

deep sea research. Then followed the memorable expedition of the Challenger in 1872, and later came a crowd of investigations in every sea.

finds they make.

### The Ocean Bed Is a Plain.

It may be said that in their broader features the contour of the ocean bed and the phase of deep sea life are now revealed. Here are some of the most interesting facts that have been learned:

It was supposed a few years ago that the ocean bottom was largely a counterpart of the land features of the globe, with its mighty mountain ranges pushing up toward the surface of the sea, and deep valleys and glens sinking to almost untathomable depths. This is found to be true only to a imited extent. Here and there, to be sure, mighty mountains push toward the surface or rise above it, forming islands; and then again the bottom sinks in a narrow trough, as off the northeast coast of Japan, until it seems as though the sounding line could seems as though the sounding line could never measure its depth. But the ocean bed, in the main, is found gently to undu-late, and would present the appearance, if it could be observed, of a slightly rolling

It has been found also that we used to It has been found also that we used to have very exaggerated views of ocean depths. Maury, in his day the great au-thority upon the ocean, popularized the idea that a depth of eight or nine miles might be found in mid-ocean. We know now that a depth of five miles is very ex-ceptional. General Von Tillo, who has made the latest determinations of ocean depths form the metric depth of oll oceans made the latest determinations of ocean depths, fixes the mean depth of all oceans at 3,803 metres, or about 12,700 feet, less than two-and-a-half miles. The Pacific Ocean averages about 1,100 feet deeper than the Atlantic. The North Atlantic is deeper than the Southern Atlantic, and Arctic Ocean average able on the nearest the noise Ocean grows shallower the nearer the pole is approached.

### Deposits From Rivers and Icebergs.

four would have been swept into eternity. A stiff hat dropped to the earth below. Stupefied, frightened, cowed, dumb, the travelers, trembling, crawled down into the Very interesting facts have been discovered with regard to the great distances from land at which the sediment brought down still car. They dared not look out. The sersation of such flight was unparalleled, by mighty rivers is spread over the sea botuncatalogued. It was prostrating. They lost their breath. They dropped to the by mighty rivers is spread over the sea bot-tom. Those giants among rivers, the Niger and Congo, produce most marked effects upon the nature of the deposits at the bot-tom of the ocean. Buchanan has found that the sea bed tor hundreds of miles from land, from the Gulf of Guines to Loanda, has The inventor, with blood-shot eyes, but with the expression of a conquering god, sat at his post unmoved. He had expected this. The intoxication of success was too fine to filch his senses. A halt an hour later been filled up to an enormous extent by the dark-colored soft muds brought down by Sergeant Wiltwig staggered to his feet and motioned to the entranced engineer: "Where the rivers; and off the mouth of the Congo the shore mud has been traced to a depth of

"Over Lake Michigan. Look below!" They were a thousand feet over the surface of the earth. "My God!" cried the Sergeant suddenly

striking his head with both knuckles. "What's up?" asked Prof. Wilder. debris from lands perhaps still unknown. Dr. Murray says, however, that toward the central parts of the oceans it is difficult to "I forgot that large box of matches! It was in the shop. I forgot it this morning. I don't believe we have over 25 aboard! trace the ordinary river detritus in the de [To Be Continued Next Sunday.] posits there forming. Before the Challenger expedition only

# American Bisons in England,

Pall Mall Budget.] The Zoological Society has just acquired a pecimen of the American bison. It is a fine, large beast, though a triffe dilapidated as regards its skin. There are now severa bisons at the Zoo, which is an excellent

are we?

thing, for this fine creature has got a coniderable distance along the road leading to extinction. Formerly it existed in count-less herds on the North American praries,

but now there is only one herd left. The American bison is, indeed, quite as rare as the European bison—the Aurochs. If it were not for the great care taken of the few survivors of these two ruminants they would have been by this time as extinct as the dodo.

A FIFTH AVENUE property, near Market street, for sale at auction. See Black & Baird's ad., 11th page. su

centr ocean abysms. The English vessel Porcuhas been gridironed by lines of soundings, has been gridroned by lines of soundings, and the important fact has been discovered that below 600 feet there is no organic life, the lower stratum being so much impreg-nated with sulphuretted hydrogen. The work of the Fydla in Denmark Strait, bepine, in 1869, fairly ushered in the era of tween Greenland and Iceland, had the im-Atlantic waters pass north through the strait under the surface Polar stream flow-

ing south. The oceanic studies have been rich in results concerning the nature and extent of the currents, the color and transparency of sea water, the temperature at various depths, polar ice, the formation and dinensions of waves, and various other nheomena, and the extensive literature now cressible relating to the sea in all its as

pects shows that rapid progress is making in oceanography, the youngest of the CYRUS C. ADAMS.

# THE NEGLECT OF LANGUAGES.

Even the Learned Men Are Not Able to Keep Up Their Acquired Tongues.

The present state of linguistic education gives the most unsatisfactory results, says Philip Gilbert Hameston in the Forum. Languages are first very laboriously and ery imperfectly learned and then generally bandoned in after-life. Even the learned themselves rarely pursue them unless they have some special reason for doing so connected with their professional business Modern languages are neglected almost as much as the ancient when they are not wanted for business purposes or travel. An Oxford man who is a ripe Italian scholar ells me that young ladies in England invariably give up their Italian after leaving school, as young men throw aside their Latin. University degrees are evidence of past labor, but not of interest, affection or facility. Lord Dufferin said that although he had taken a degree he could not really read Greek until he had learned it over

again for himself, and in his own way. An English Judge who had taken his depree at Cambridge told me that he could not make out Greek in mature life, even with the help of the lexicon. A fellow of the French university, a prizeman especialy for Latin in a severe competitive exam-nation, told me that he should never think of reading Latin for his pleasure-he did not know it well enough. An English professor, reputed to be one of the best Latin scholars in his own country, gave up Latin and Greek entirely when he turned his attention to modern languages. The principal of a French college once confessed to me that he never read Latin or Greek, which were taught in the place by the specialist masters under him. All these were what he called "learned men," cer-tainly educated men. What, therefore, are we to expect from the half-educated?

### AN ALARM FOR POISONS.

Contrivance That Rings a Bell When Deadly Bottle Is Taken Up.

six deep sea fishes were known. To-day about ten times as many forms of deep sea life are familiar to oceanographers. We can form some idea of the abundance of life A medical correspondent of the Lance says: When reading an account of Mr. Mannell's bottle stand, by which the inadverexisting in some regions at a depth of 21/2 miles, when it is said that at a single haul of the trawl only 12 feet wide and dragged tent use of poisonous drugs may be avoided, very ingenious electrical contrivance over the bottom for a very short distance, as many as 150 specimens of the higher forms of deep sea life have been obtained. which I saw about two years ago in the establishment of a chemist at a well-known tablishment of a chemist at a well-known seaside resort was called to my mind. Under each bottle containing a poisonous substance, as it stood on its shelf, was placed a small metallic disc, which was con-nected by a wire with a battery. When a bottle was removed a bell was immediately rung, and continued to ring until it (the bottle) was replaced, thus giving unmis-takable evidence of the fact that a poison-ods drug had been touched. In a word, the action was that of an ordinary electric bell reversed—i.e., the bell rang when pressure Two Kinds of Oceanic Life. One very interesting fact seems to have been established by the recent investigations in the Pacific of our Fish Commission steamer Albatross. It has long been known that, the group of animals characteristic of the upper part of oceanic waters is entirely distinct from the forms of life near, and at the bottom of the sea. The Challenger in-vestigators thought they had established the fact that another distinct group of animals exists in the intermediate depths between these upper and lower forms of life. This reversed—i. e., the bell rang when pressure on the disc (caused by the weight of the bottle) was removed, and vice versa.

with a dauntless, he

heart that knew no fear. To take my readers through his military career would be to rewrite the history of most of the war in the Southern States of the Confederacy. He was present at the eventful battle of Shiloh, a brilliant Secestionist victory one day, a defeat the day af-er. When General Beauregard's line of ter. battle halted on the evening of Sunday, the 6th of April, in the midst of the Federal camps which had been taken, his troops were thoroughly exhausted, and thought only of obtaining food from the captured supply warons. Forrest on his own initiative pushed forward his scouts to watch the

tive pushed forward his sconts to watch the enemy's doings, and soon discovered that large Federal reinforcements were being ferried over the Tennessee River. He at once perceived the gravity of the position, and did all he could to communi-cate this to his army headquarters, but no one knew where they were. In his search to find them he fell in with the officer commanding an infantry brigade, to whom he said, in his own rough colloquial vernacu-

lar: "If the enemy come on us in the morn ing, we shall be whipped like (-)." His His prophecy was not far wrong, and by Mon-day night General Beauregard's army was in full retreat.

### One of His Characteristic Charges.

General Sherman pressed the retiring Confederates very hard all Tuesday, the 8th of April; upon one occasion during the day Forrest with about 350 men keenly watched his opportunity from an offensive return from behind a ridge which afforded his soldiers good protection. The Federal ad-vanced guard of two battalions of cavalry and a regiment of two battations of cavary and a regiment of toot, upon reaching the ridge, at once proceeded to attack it with great spirit, but in crossing a little in-tervening ravine and stream, fell into some confusion. Forrest, with his usual quick military perception of such an opening, at once told his bugler to sound the "Charge!" and, pistol in hand, dashed in among the astonished Federals. The effect was instantaneous. The enemy's horsemen fied back panic-stricken through the woods, scattering

panie-stricken through the woods, scattering their own infantry, who quickly doubled after them. A scene of the greatest confu-sion ensued, and Forrest, pursuing for some distance, killed many and took some 70 prisoners. With his usual hardihood, pushing on

well ahead of his men, he soon found him-self face to face with the enemy's main body, and under a galling fire from all sides. A ball struck him above the hips, and hurt-A ball struck him above the hips, and nur-ing his spine, at once benumbed his right leg. His horse, though mortally wounded, still enabled him to bolt for his life through a crowd of the enemy, who shouted, "Kill him!" "Shoot him!" etc. An unerring shot with his revolver, he soon cleared a path for himself and formed encement theat there himself, and found once more at least temporary safety among his own men. It was many weeks before he was again able to take an active part in the war.

Celebrated His Birthday in Carnage. A couple of months after the battle of

A couple of months after the battle of Shiloh Forrest was sent to command a cavalry brigade at Chattagooga, and bidding goodby to his old regiment, set out in June, 1862, for this new sphere of action. With-in a month of entering upon this new com-mand he had taken Murfreesboro in Tennessee. It was one of the most remarkable achievements of his life. His force con-sisted of not more than 2,000 badly-armed

men on horseback. A five days' march brought him before that place at early dawn -the enemy being in entire ignorance of his presence. Surprised in their camp, and his presence. Surprised in their camp, and charged in the streets of the town, the place was soon taken. It was Forrest's birthday, and the evening before, when he told his men this, he begged they would celebrate it by their, courage. His appeal was not in vain, for they never fought better or against greater odds. greater odds.

greater odds. After the town had fallen, there remained two camps outside in which the Federals still showed fight. Before setting out to attack them many, who did not know For-rest regarded this enterprise as dash and doomed to failure; and now several of his officers urged the propriety of being content

having found horses for these foot soldiers they were thenceforward reckoned as "cavalry." His little army now consisted of two weak divisions, with which, in 1864, he took Union City, attacked Paducah, had a most successful engagement at Bolivar, and finally captured Fort Pillow. In these operations he inflicted great loss in men, operations he indicated great loss in men, arms, horses and stores upon his enemy, largely reinforced his own command, and refitted it with captured equipments. Re-peated efforts were subsequently made by General Sherman to capture or destroy General Sherman to capture of destroy Forrest's apparently ubiquitous force. He several times drew a great cordon of brigades and divisions around him, but all to no purpose; he defeated some and escaped from others. His hairbreadth escapes from capture when thus closely surrounded by

All this information did less, however, to numerous bodies of troops, each larger in itself than his whole command, read more All this information did less, however, to make me feel that horse meat was a fact than the brilliant banquet at which the hip, pophagists celebrated the advance of their doctrine in February. The menu was char-acteristic. It included horse sausage, horse like the pages of romance than the history of military events. All through his operations one great secret of his success was his intimate knowledge of the enemy's movements and in-tentions. His campaigns were made in dis-tricts where the inhabitants were heart and soul with him, and it was therefore much d'la Geoffrey Saint-Hilaire, mule easier for him than for the Federal Generals to obtain useful information. His system of reconnaissance was admirable, and, for the reason just given, he could venture to

push his scouts out in twos and threes to very great distances from headquarters.

tate at mare's cheese. One Federal General was removed from his command at Memphis for having failed his command at Memphis for having failed to do anything against this now redoubtable commander. Shortly afterward Forrest himself marched into Memphis and took possession of the newly-appointed Federal General's uniform which was found in his room. The disgraced General, in vindica-tion of his corn conduct within said: In Decroix is in honor of an old man of 10, a member of the Legion of Honor, who has given his life to popularize the use of meats rejected by French palates. He is an hon-est advocate and eats regularly of all that tion of his own conduct, wittily said: "They removed me because I couldn't keep he preaches. Forrest out of West Tennessee, but my suc-cessor couldn't keep him out of his bed-room." Forrest sent this uniform back to The Test of Actual Experience

its owner, who, in his turn, sent Forrest some gray cloth and gold lace to make into a Confederate uniform.

### He Could Make a Good Citizen.

He could Make a Good Citizen. The war over, Forrest at once recognized the necessity of patriotically accepting the fact that the North had won, and that the South must accept whatever terms the humane Mr. Lincoln might dictate. He published an address to the gallant men who had so long followed his plume in battle, and who were not only personally decreted to him but thoroughly believed in

for her and she faltered a cowardly oui and went out. devoted to him, but thoroughly believed in him as a skillful and an eminent leader He reminded his men that the terms grante that in certain quarters, and on the out-skirts especially, there were shops which were licensed to keep it; that in all cases the law required that it be plainly marked. by Mr. Lincoln were satisfactory, and mani ested "a spirit of magnanimity and liber ality on the part of the Federal authori-ties." The last paragraph of this famous order was as follows: "I have never on the A number was given me. It proved corfield of battle sent you where I was un-willing to go myself; nor would I now ad-vise you to a course which I felt myself unrect. Here I found information as well as

willing to pursue. You have been good soldiers; you can be good citizens." 20 cents a pound: the "beefsteak

Like most of the planters who had become soldiers, the end of the war had found him financially ruined. But with that pluck and energy which characterized every action of his life, he at once set to work to retrieve his fortune. He went back to his plantation, and from it he extracted enough to keep him and from it he extracted chough to keep him from want; he also embarked as a contractor upon some of the railways then being pushed over the Western plains, and although he was never rich again, his gains placed him

above poverty. He died about 12 years after the close of the war, from the effects of the wound near the spine which he received at the battle of Shiloh. He had been four times wounded, and had had 18 horses killed and 10 others rounded under him during his four years o of war service. What a record! It would be difficult in all history to find a more

be difficult in all history to find a more varied career than his—a man who without any learning, and by sheer force of character alone, became a great fighting leader of fighting men—a man in whom an extraordi-nary military instinct and sound common sense supplied to a very large extent his unfortunate want of military education.

1 tai and the second se

killed and cooked, and in default of mimal which is the personification of thes were seasoned with cannon powder. These advocates tell with emotion the

Originated With the Slege.

SOUP.

Consomme of Horse, with Barley.

RELEVES.

ENTRES.

BOASTS.

Dog with Pepper Sauce. Vegetables.

DESSERT. Plum Pudding with Rum and Horse Marrow Sauce.

translated:

qualities? If so, then may it not result that the Germans, who, by their siege of Paris are really responsible for the fame of horsestory of the modern debut of horse ment in meat in France, have given to the French the very weapon with which in the future Paris. It was a work of philanthropy, and oddly enough a woman was responsible for it. This woman was a Madam Boitelle, the wife of a Prefect of the Seine. Madam B. they shall conquer and win back the much-mourned Alsace-Lorraine. It is certain that if France could add a level head to her was a devoted friend of the poor. She was greatly troubled by the fact that the work-ing people could not afford to buy sufficient brilliancy there is nothing she might not do in the way of conquest. Let us hope, not for the sake of the boundary line, but for ing people could not allord to buy sufficient meat at the usual prices. She believed horse flesh to be nutritious. She knew it could be sold cheaply. In 1866 she per-suaded her husband to allow a shop to be that of human progress, that hippophagy will give her the qualities she lacks. opened. The 194 shops which exist to-day are a sufficient monument to her good

A CAT WHIPS AN ALLIGATOR.

### The Battle Lasted Several Hours, but Tabby Was a Stayer.

IDA M. TARBELL

ton Herald, 1

A house cat belonging to Mr. Walton, of Vernon, Fla., was in the habit of going to the river and feeding on mussels and such d' la Geoffrey Saint-Finaire, mut offans, smoked horse tongue, filet of horse a' la De-croix, mule ham and horse pates. The menu was not completely equine. The cheese and drinks were ordinary. Why not follow the fish as it could get and it was noticed several times that when the cat moved along the bank a ripple in the water showed that an alligator kept pace with it in the water. The cat, however, was aware of the alliga-Arabs and add cheese of ass milk, and the Russians and make a drink of mares milk? tor's presence, but showed no signs of fear. One day recently the cat approached too near the water in its eagerness to get a fish, and was suddenly grasped by the hind leg by an alligator about three feet long. The Consistency is a jewel. A sect which sings the praise of mule sausage ought not to bes-

One or two of the names in the above list need explanation perhaps. A la Geoffrey Saint-Hilaire is in honor of the famous scientist of that name who was the first to cat made a spring and got away, but the leg was bitten hadly and bled freely. The taste of blood seemed to put the allirive authority to cating strange flesh. A a Decroix is in honor of an old man of 70, gator in a frenzy, for it came out on the bank and tried to continue the pursuit. The cat turned on its enemy, and then began a fierce fight. The cat was so quick that it was impos sible for the alligator to get a bite at it, and the result was that the saurin was soon en-deavoring to beat a retreat to the water. But the cat now began an offensive attack The Test of Actual Experience. One does not like to be behind all his neighbors. I resolved at last to look upon horse steak in its original shop, to buy and to eat. I made my first application at a rather swell place. The polite butcher raised his systerows at my inquiries. He did not keep cheral. No first class shop like his did. Did mademoiselle want it for her dog? Mademoiselle didn't. She wanted it for herself, but her pride was too much for her and she faltered a cowardly oui and

and cut off the way, nipping the alligator in the throat and tender spots under the arms, until the reptile was bleeding and almost exhausted. This fight continued for several hours, and when at last the alligator gave up it was bleeding from over 100 wounds. The cat was seemingly unburt except in the wounded leg which was injured before the fight began.

The Next Point. Detroit Free Press.1

The next shop was less stylish, but it "I have been in nineteen engagements," didn't sell horsement. However, it gave the information that there was a stall in each market where it could be found, and oasted Colonel Battles, the old war horse. "And how many times have you been married?" asked Miss Elder, with deep interest.

SPRINKLE a little Bugine in the cracks and revices around the kitchen sink, and if are are any rouches or other bugs ther ay will swarm out and drop dead. 25 cent

steak and sausage. The first related to prices. The roast costs WE pack and store furniture; clean, dry wareh HATCH & KEENAN, 33 Water street. cents; the leg, 8 cents; ribs, 3 to 4 cents.

# . Do Not Be Deceived.

Persons with weak lungs-those who are constantly catching cold - should wear an Allcock's Porous Plaster over the chest and another between the shoulder blades during the cold weather. Remember it always strengthens and never weakens the part to which it is applied. Do not be deceived by imagining any other plasters like it - they are not may look it, but looks deceive. Insist always on having Allcock's, the only reliable plaster ever produced.

18,000 feet at a distance of 600 miles from land. In the Bay of Bengal and the Arabian Sea the sediment from the Indus and the Ganges is spread out over the greater extent of the ocean's floor. Antartic ice brings as far north as 40° south latitude the