Deer Antlers.

Almost all kinds of deer in which the antlers are small or little evolved tend to supplement them by fighting teeth. On the other hand, it is the more usual habit of all prairie or forest ruminants to fight one another by butting with the head, and under such circumstances the possession of any protuberance or knob upon the forehead, of whatever sort, would be certain to give the animals which happened to display it a great advantage over their rivals in the annual wager of battle. Hence it happens that three diverse types of headgear have been separately developed in three groups of ruminants, In the giraffes a distinct conical bone, covered with skin and hair, buds out from each side of the brow, and forms a dangerous weapon of offense capable of fracturing the skull of a rival, as happened once during a giraffe fight at the Zoo. In the hollow-horned ruminants, such as antelopes and cow-kinds—that is to say, all those sorts with true horns, as distinguished from antlers—the bony core forms a part of the skull itself, and is coated by a horny covering, which is never shed during the animal's life. And in the deer tribe, which possess antlers instead of horn, the weapons of offense are also bony, but without any coating of horn, and in the final state at least are quite naked. Each of these three distinct types of butting apparatus must have been separately evolved from a primitive hornless ancestor; and each (except that of the now quite unique giraffes) has undergone many subsequent changes and modifications in adaptation to special needs. Some isolated species of the deer, such as the American brockets, have hardly got at all beyond the very first stage in the production of antlers; they have only a pair of knobs on the forehead, like the simple dags of those young red deer in their first year which the keepers know as brockets. So, again, a Chinese muntjac has little beams hardly an inch long, supplemented by a powerful hair of canine tusks. One stage above this early type in evolution comes in common muntjac of India, well known to sportsmen in the Deccan, with antlers about four inches long, and possessing a single rudimentary brow tine beside the beam. This second stage is reached and passed by the red deer in the second year. Thence we can trace a constant progress, through kins which have triple branches, like the staggard, to the very much subdivided antlers of our own red deer, or the still more complex armor of the wapiti and the Barbary deer, Each higher species faithfully reproduces from season to season, in its own growth, the various stages through which its ancestors have passed; and we can place side by side a perfect series of corresponding forms in the two modes of development, each year of the red deer or wapiti being paralleled by a close similar adult animal of some other species. It is noteworthy, too, that the fossil order exactly answers to what we should expect it to be in this respect; earliest deer kind whose remains we know have very simple and rudimentary antlers, indeed, and they gradually increase in complexity from the first fossil species till the extinct kinds of the period immediately preceding our own. In April the stags exhibit the first beginnings of the new year's growth. A pair of knobs show themselves about the scar left by the burrs of last autumn's antlers, and the smooth dark velvet that covers them gives hardly any sign of active life. With the warmer weather, however, the knobs have begun to bud more vigorously, and the pulses in the velvet show clearly that the arteries are busy at work building up a bony layer on the new pair of dags. As long as the bone continues to grow, the skin inside the vevet remains warm and richly supplied with blood, for of course the work of depositing the dense material of the antler is carried on by this vital covering, which acts to the core much as the delicate skin of a bone does to the hard mineral mass beneath it. While the work of deposition goes on the stags are very shy and retiring, keeping out of the way as much as possible, for any injury to the velvet causes them to bleed profusely, and also prevents the due growth of the subjacent antler. As soon as the horns have attained their full growth, however, the arteries in the velvet dry up and the skin becomes reduced to a mere papry covering, which the stag proceeds to rub off against the ground or on the trunks of trees. Once the core of bone alone remains, he begins to toss his head, to seek the hind, and to do battle for them with his rival stags. On the Scotch hills much harm has been done to the development of antlers by the foolish and unscientific practice of killing off the finest heads, which leaves only the less developed to perpetuate the species, so that our British stags have seldom more than 10 or 12 tines; but on the continent, where nature is allowed to have her own way to a greater extent, stags have been shot with between 60 and 70 branches to their lordly antlers.

Famous Earthquakes.

Casamicciola, Italy, is in one of the two great earthquake zones, the other district being the western portion of South America. In no century since the earliest recorded history has Southern Italy and Sicily escaped suffering from frequent and severe earthquakes. In Sicily, in 1693, 60,000 people perished in one earthquake. During the reign of Tiberius, 16 A. D., 120,000 people lost their lives in one day in consequence of an earthquake. The earthquake attended with the most serious results in the destruction of human life was that of 526, when 250,000 human beings perished, according to Gibbon's figures. Antioch, which had previously been destroyed at least twice, and several other Syrian cities, were completely destroyed, and the shock extended into Italy, where great damage to life and property resulted. In 63 Herculaneum and Pompeii were destroyed by an earthquake, this being 16 years before the burial of those cities by the eruption of Vesuvius. The city of Judea was destroyed in 31 B. C., when 10,000 people lost their lives.

The most famous earthquake of history was that at Lisbon, Nov., 1755, when 30,000 people were buried alive and 30,000 more were killed. Calabria, Messina and a number of smaller villages were destroyed Febr., 5, 1783, and some 100,000 lives were lost. In 1825 Murcia, Spain, was destroyed, 3,500 houses being thrown down and a couple of thousand people being killed. Lima and its harbor, Callao, in Peru, was destroyed in 1586, and again in 1746 and thousands perished. Arequipa, Peru, was wiped out of existence in 1868, 50,000 being left homeless and several thousands losing their lives. In the same year the cities of Ibarra and Otavalla were destroyed, and not one of their 10,000 inhabitants escaped or could ever be found afterward. Catocatchy was also obliterated from the face of the earth, and a lake now covers the spot where it stood. In that earthquake the United States war vessel Wateree was carried from the harbor of Callao two miles inland. The famous earthquake which devastated and depopulated Callao in 1782 continued at intervals for four years. It took but three minutes for an earthquake to make the entire city of Port Royal, Jamaica, a complete wreck in 1692 and even less time for the destruction of San Salvadore, in the West Indies, March 19, 1873. The city of Mendoza, in the Argentine Republic, was destroyed and twelve thousand people killed by a shock of but a moment's duration in March, 1861.

The Munich Academy of Art has among its 468 students thirty-four Americans.

AGRICULTURE.

EXPERIMENT IN GROWING CORN.—An experiment in corn-planting, by the Iowa College, last year, in three separate plantings, all put in on the same day—May 6—each plant being 160 square yards, resulted as follows: The plat in which the hills were 3 feet 10 inches by 12 inches apart, with one stalk in a hill, produced at the rate of 69.06 bushels per acre; the plat planted 3.10 by 20 inches apart in the hills, and two stalks to a hill, produced at the rate of 57 bushels to the acre; and the third plat, planted 3.10 each way, with four stalks to a hill, produced only at the rate of 50 bushels to the acre. This is an important fact to know. The experiment was conducted with the utmost care for the express purpose of deciding a question which has always given rise to a great deal of discussion, alike as to the proper distances between the hills and the rows, as well as the number of stalks in a hill. Twelve inches distance between the hills would be almost equal to four grains in a hill at 3 feet 10 inches apart and practically amounts, to drilling, which of course demand additional labor in removing the weeds, and cultivating the soil between the hills with the hand-hoe, as the crop could be harrowed only one way. Whether the extra bushels would pay the additional cost of labor, we do not pretend to answer, though the established belief is that it will not, and that is the reason why so few farmers adopt the drilling system.

MEADOWS AND PASTURES.—The frosts of winter heave the soil, and it is well to pass a roller over the meadows and pastures, to firm the surface and make it smooth for the mowing machine. All stones loosened by the frosts should be removed; large ones, if not needed for building purposes, may be sunk out of reach of the plow. Meadows may be much injured by live stock running over them in early spring, when the ground is wet. Any grazing done at this time is at the expense of the hay crop. It is far better to keep the animals in the stables and yards until the pasture is able to furnish a full ration, or nearly so.

THE soil should not be worked when too wet. Many a good field has been nearly spoiled for years by such treatment. The soil when workable will crumble in the hand, instead of remaining in a solid impression showing the lines of the hand. Next to manure for crops, success depends upon thorough preparation of the soil for the seed. If posable it should be so fine when ready for sowing that a double handful can readily be scooped up without digging for it.

A GOOD sign of the times is that so many young men in starting to farm adopt improved stock, and they become enthusiastic, earnest and ambitious, which alone will bring success, and all the more certain on the high tide of improved stock breeding. Stock of some kind is essential to successful farming, and improved stock brings the best profit, quickest returns and gives a charm of prosperity and dignity to the farm.

FINELY-FLAVORED, aromatic, sweet butter can only be secured through the use of a percentage of new milch cows in the dairy at all seasons. Darlington the famous Philadelphia butter-maker, milks his cows for the butter only three or four months after calving, then diverts their milk to cheese or to the supply of the city milk trade. Butter made from the milk of farrow cows is inclined to crumble and taste cheesy.

THE following rule for estimating the amount of hay in a stack will be found approximately correct: In stack, timothy, after ten days or two weeks' setting, 600 cubic feet to the ton; clover, 700, and prairie hay 550 feet. After thorough settling about 500 cubic fect of timothy, 550 of clover, and 450 of prairie hay. To get the cubic dimensions of a stack, multiply the average length, breadth and height together.

THERE is a grade of wheat in Oregon known as Goose wheat, so called because it originated from a few grains found in the crop of a wild goose. The wheat has a hard outer husk, and the bran is very coarse; it makes a peculiar grade of flour. Its exact duplicate is found in a small province of Spain, and the inference is that the wild goose must make pretty rapid time.

A GOOD horse power on a farm will each year save many times the interest on its cost in furnishing power to do a great manythings, that would else have to be performed by hand, such as sawing wood, cutting feed, grinding grain, etc.; and with proper care it would be made to last for years.

RUB a little ointment made of equal parts of kerosene, lard and flowers of sulphur on the heads of young chicks, apply this for the first week after they hatch and they will not be apt to be troubled with much vermin.

ONE of the important points in planting seeds is to press the soil very firmly upon the seeds. In setting young plants the same thing should be remembered. It is also beneficial to strip off some of the leaves.

A CAREFUL farmer says that his best wheat is that on which his sheep were pastured last winter. He permitted the sheep to run in the wheatfields only when the ground was solid.

EVERY care and attention shown to horses, no matter what their condition is, will bring its reward. The kind of influence thrown around a young horse will have its effect on its character in after years.

OWING to atmospheric circulation in the soil, drained land is ten degrees warmer than undrained land. While, however, drier in wet weather, it is moister in dry, protecting in this way from drought.

IN Italy and Japan water from the hot springs is extensively used in gardens for the production of early crops.

FULLY forty tons of the indispensable insecticide known as pyrethrum powder will be produced in California this year.

GERMANY has at present over 150 schools of agriculture, vinculture, etc. Each of these has farms, gardens, etc., attached.

IT appears that the leaf of a plant can transform into useful work as much as 40 per cent. of the solar energy it receives and absorbs.

IN complete vacuo liquids in general boil at a temperature of 140 deg. lower than in open air.

A good lining for conduit of pipes consists of equal quantities of burned lime, cement, potters' clay, and loam well dried, ground and sifted, and then intimately mixed up and kneaded with linseed-oil and var ish. For water pipes it is well to use more cement.

To remove fixed glass stoppers, tap and then unscrew with this sort of a wrench made of a piece of strong wood. Have the wood 3.5 inches long and 1 inch in breadth and depth, with a piece mortised out large enough to admit the flat part of the glass stopper.

When traveling on a railroad it is said that lying with the head towards the engine will often cure a headache.

DOMESTIC.

FLORIDA CRAB SOUP.—Boil four large, heavy hard-shell crabs in boiling salted water for about fifteen minutes, or until the shells turn red; then as soon as they are cool enough to handle take all the meat from the shells, rejecting that part lying back of the eyes, and the soft fins; save all the green fat, coral and creamy, curd-like substance; put aside the meat of the claws after having cut it in pieces about an inch long and quarter of an inch thick. While the crabs are boiling pick over half a cupful of rice and put it into salted boiling water to boil for twenty minutes; then drain it in a colander. When the rice is done put it into a mortar with all the substance of the crabs except the meat of the claws, and pound all to a smooth paste; or, if a mortar is not available, rub the rice and crab through a sieve with a wooden spoon or potato masher; stir the paste thus formed with one pint of hot cream, and then add it to three pints of boiling milk or soup stock; season the soup with salt and cayenne pepper, put the meat of the claws into it and serve it directly. If cream is not on hand, beat the yelk of a raw egg with a pint of milk, and strain and use it in place of the cream, but do not allow the soup to boil after adding it or it may curdle.

BLACKBERRY JELLY.—Use perfectly sound, ripe barries; put them into the preserving kettle, break them a little with a wooden spoon, and gently heat them until they are soft enough to yield all their juice; then pour them into a jelly-bag, and drain off all their juice. To each pint of juice allow a pound of sugar; put the juice and sugar over the fire in a preserving kettle, and stir until the sugar is dissolved; when this sirup begins to boil skim it as long as any scum rises, and continue to boil it for twenty minutes, or longer, until a little of it cooled on a saucer forms a jelly; then remove the kettle from the fire; fill the glasses while the jelly is still liquid; when the jelly is quite cold lay in each glass a piece of white paper dipped in brandy, and then close the glasses from the air by pasting over them rounds of paper dipped in the white of egg, slightly beaten. Keep the jelly in a cool, dry closet.

MARYLAND CRAB OLIO.—Boil six large crabs and remove them from the shell as directed in the preceding recipe; peel a medium-sized egg-plant, boil it until tender, about fifteen minutes, and then chop it as fine as the crab-meat; scald and peel six large tomatoes and chop them rather fine. When all these ingredients are prepared put them into a frying-pan containing a tablespoonful of butter, season them highly with salt and pepper, and fry them for five minutes, stirring them well; then mix with them the beaten yelks of three raw eggs, put them into an earthen dish, dust the top with fine bread or cracker crumbs, and brown the surface in a very hot oven. Serve the olio hot.

IN buttons there is endless variety, and the sizes graduate from that of a three-penny to a five shilling piece. There are mother of pearl for painting, on finely cut steel, radiant in size and in form like a scallop shell, palettes, with a figure or a sketch, resting on gilt, circular plates, silver embossed buttons, surrounded by fancy gilt edges, old coins inserted into bronze medallions, delicately colored Watteau ones, and jeweled centres (imitation) set with cut steel.

A PRETTY way to brighten a willow chair is to tie two bows to the back of the chair, a blue one at the top and a pink or cream-colored one below it, at about the centre of the back, or have both of them of scarlet ribbon; tie them so that loops and ends are about the same length.

BLACKBERRY AND APPLE JAM.—Use equal weights of blackberries and fresh apples pecled and cored; put the fruit into a preserving-kettle with an equal weight of sugar, and place it over a moderate fire; remove all scum as it rises, and boil the jam for three-quarters of an hour, stirring it frequently; then cool it, and put it up as already directed for other jams.

GOLD, silver and bronze silver thistles are novel, and they are arranged for bonnets as well as for dress decoration; some have mauve floss silk inserted, resembling the natural thistle-down. On black bonnets and dress s they look remarkably well.

To give consistency to a pie-plant pie, allow to one coffee cuptul of pulp one heaping tablespoontul of cornstarch; then mix with this the yolks of three eggs, and use the whites for a meringue.

STEWED liver is appetizing when one is tired of fried meat and roast. Stew it in a saucepan with a little water in which you have put a lump of butter, an onion cut in slices, and a liberal allowance of pepper and salt.

FROZEN oranges for dessert on a July day are delicious. Remove the peel and slice the oranges; to each pound of oranges add three quarters of a pound of sugar and one-half pint of water, and freeze.

ALTHOUGH melted butter will not answer when making nice cake, still it may be softened by heat so that it will beat easily, and yet the flavor be unchanged.

SAGO prepared like custard, and then baked with apples or other fresh or canned fruit is a nice dish for a convalescent.

FULL plastrons are in high favor, and are held in place by straps of velvet at intervals from the neck to the bottom of the basque.

COLD boiled potatoes used as soap will clean the hands and keep the skin soft and healthy. Those not overboiled are the best

GAUZE brocaded with velvet is very popular for overdresses and long mantles.

IF you wish to produce glue that will will resist water, boil one pound of glue in two quarts of skimmed milk.

ROUND hats for traveling are trimmed with 2 hat bands of kid or ecru leather fastened by buckles.

GOLD braid is very stylish and much worn.

AFTERNOON tea-aprons entirely of lace are the latest.

FEATHER fans are the most fashionable.

Krupp's works, at Essen, now employ 439 steam boilers and 456 steam engines, with the aggregate of 18,500 horse power. There are 89 steam hammers, carrying weights ranging from 200 pounds to 50 tons.

A crystalline aluminum borate has been discovered by M. Jeremeiew in the Sokton Mountains, near Adoun-Tebilon, Siberia. The exact composition of this new mineral species has not as yet been determined fully.

A writer in one of the medical journals says he has found the application of a strong solution of chromic acid, three or four times a day, by means of a camel's hair pencil, to be the best and easiest method for removing the warts.

HUMOROUS.

A GENTLEMAN went into a gun store for the purpose of buying a gun. He saw a fine sample of the stock on the show case and attempted to pick it up for examination. The German storekeeper, who saw the move e t, shouted: "Mine friend, dots besser you look pooty veil out. Dot gun vas loaded, und vhen he goes off he kicks like ter tuyfel." The gentleman, thinking to have some fun with the German, replied, "A gun can't kick; it has no legs." "Vat! said the storekeeper; "he don't can kick! Yoost vait. I dells you somedings, und I gif you a leedle inflammations. I vas in der pishness und I know somedings. A gun don't kick mit its legs; it kicks mit its breeches."

"Is your railroad well equipped?" Railroad president—"Well equipped? I should say it was. Splendidly equipped, sir, splendidly. For instance, there are our first morgage sevens, and our second mortgage sixes, and our equipment bonds, and our land grant bonds, and our common stock, and our preferred stock, and the biggest floating debt of any road in the country. But that isn't all, sir. We've got the finest lobby that any corporation can show; a perfect daisy, sir. If you know of a road that's better equipped than ours is, name it, sir; name it, if you please."

"CHARLEY is a wonderful fellow; great presence of mind, you know." "Why, what has Charley been doing?" "Bet on the boat race and lost everything—completely cleaned out—not a cent left." "Well?" "Knew his wife would rave about it, you know; call him all sorts of fools and fling it in his face as long as he lived. So Charley flung his empty pocket-book overboard and swore that he had had his pocket picked when he got home. What d'ye think of that? Wonderful fellow! Great presence of mind!"

SOLD: Young Collector—"Here is a very ancient little piece of Chinese ivory, evidently of some historical value, and I only paid $40 for it. Can you translate the inscription for me?" Professor, after profound study—"This, sir, is a laundry check. The inscription is an English one, written in Chinese characters, and says, 'No money, no washee.'" Young collector does not say that he has promised to take two more at the same price if the dealer can secure them for him.

Two gentlemen were talking the other day about their success in life. One remarked that when he came to Baltimore, just after the war, he didn't have a second shirt to his back. "That's nothing," replied the other. "When I came to Baltimore I did not have any shirt to my back at all." He was born here.

PROFESSOR, to a young lady student. Your mark is very low and you have only just passed. Young lady—Oh, I am so glad. Professor, surprised—Why? Young lady—I do so love a tight squeeze.

MOSE SCHAUMBERG always charges two per cent. a month on all money he lends. A few days ago Gus de Smith and Gilhooly happened to be in Schaumberg's store, and Gus said: "Mr. Schaumburg, I would like to speak to you privately for a few moments." "Don't, don't, Gus," whispered Gilhooly; "he'll charge you two per cent. a mouth for the use of his ear."

"DON'T say 'entry,' Charles," said Mrs. Culture to her son, "'hall' is much more elegant." Next day the young man astonished his friends by speaking of Alderman Shoughnessy's "hall into office," but the boy wasn't so far out of the way; had he spelled it "haul" he would have been quite correct.

THE following order for a set of teeth was recently received by a Pittsburg dentist: "My mouth is three inches across, five-eighth inches through the jaw; some hummocky on the edge; shaped like a horseshoe, toe forward. If you wish me to be more particular I shall have to come thar."

SAYS Rev. Dr. Deems; "I know men down on Wall street, and I will even go so far as to say in Washington, who are as pure as any saints I ever saw." If Rev. Dr. Deems doesn't get himself disliked by his flock after this utterance they must indeed have the patience of saints.

"BUSINESS is pretty good," said an undertaker to an interviewer; "but if lying was punished as it was in the days of Ananias, I would have to enlarge my works and purchase fifty more hearses." He would also give some other undertaker a job.

IN Vienna the law compels a married man to obtain permission from his wife before he can go up in a balloon. Up to date there has not been one application refused, and the authorities are beginning to think the law might as well be repealed.

THE *Drummer* says: "The meanest man we have heard of this season is the fellow who telegraphed his sympathy to a friend, who had lost everything in speculation, and made him pay for the message."

SAMMY TILDEN has grown so strong that when he whistles for a street car he can be heard distinctly with the naked eye.

"WHAT! smoking again! I thought you said smoking didn't agree with you!" "It doesn't (expelling a thick cloud), but we've agreed to disagree."

IT'S easy enough for Dr. Talmage to tell us to look on the bright side of things, but when a man wants to look at the eclipse, then what?

COMMERCIAL traveler—"My name is Miller. I am agent for Schultze, in Berlin," Merchant—"Schultze, in Berlin? In that case I must beg you to shut the door from the outside."

Glass is being every day put to a variety of uses for which its fragility would seem to make it little adapted. The latest instance of this is glass shingles, now manufactured at Pittsburg, and said to be more durable, stronger, and more impervious to rain than slate or any other material.

For a period of 44 years none of the men employed in a German ultramarine had been observed to suffer from consumption. The immunity of the employes is attributed to the constant production of sulphurous acid by the burning of sulphur in the course of the making of the ultramarine.

It is maintained by some scientists that the aroma of fruits increases with the latitude, while the sweetness decreases. Many herbs, such as caraway, are richer in essential oils in Norway than in more southern regions. This effect is ascribed to the influence of the prolonged light of the summer months.

M. Angot has been investigating the influence of altitude upon vegetation. He finds that the harvest time for winter wheat is retarded in France 4 days, on an average, for every increase of about 350 feet in the height of the land above the level of the sea.

In Great Britain the loss to the Government by worn silver withdrawn from circulation because of deficiency of weight caused by wear and tear amounted last year to $140,000.

Experiments made some time since by Prof. Doremus have shown that gas will readily pass through stone. A block of brown sandstone, 12 by 15 inches long and 4 or 5 inches thick, was used. A pipe was clamped on to the stone by means of iron plates, and this pipe connected by means of flexible tubes with the gas pipes. The remainder of the stone was painted over several thicknesses with varnish. Opposite to the point where the gas was applied there was another pipe for the gas to escape from. In a few moments a lighted paper applied to it caused a flame to appear, showing that the gas had passed through the stone.

The Meadows of Maryland.

SPRINGFIELD, PRINCE GEORGE'S CO., MD. Mr. Chas. G. Addison, of the above place states: "I sprained my right knee causing intense suffering, and the use of crutches for several weeks. I found no relief in other remedies and finally tried the miracle of cure, St. Jacobs Oil. In a short time I could bend my knee—which had been as stiff as an iron-rod,—laying aside my crutches and was able to walk as well as ever."

The lightning rod conference lately held in England decided that copper is the best material to use in rods. About a foot below the upper terminus a copper ring is soldered, which carries three or four needles of copper six inches long, tapering from a quarter of an inch in diameter to a fine point; and it is recommended that these points be platinized, gilded or nickel-plated.

A Veteran Soldier.

MR. G. F. BOWLES, of No. 24 Common Street, Lynn, Mass., says:

"While in the army, at the battle of Spottsylvania, I fell while getting over a rail fence and was badly injured and left for dead, but after a time I was picked up by comrades; and upon examination it was found that my back was badly hurt and my kidneys seriously injured, and I have suffered the most excruciating pain since, and could obtain no relief although treated by several physicians and I had given up all hope of getting help when I was recommended to use Hunt's Remedy. I purchased several bottles at one of our drug stores in Lynn, and began to use it as directed, and can now attest to boldness, and am free from the pains I formerly had; and I wish to say to my friends and comrades that Hunt's Remedy will do all that is claimed for it, and is worthy of all praise. You can use my testimony when you have occasion to, as I most heartily recommend it to all that have kidney or liver troubles."

April 26, 1883.

"You May Use My Name."

I desire to inform you what your valuable medicine has done for me. I was induced to try it by a member of our family, "who had been benefited by its use." I have suffered terribly from kidney difficulties. At times I have been very bad having severe pains in my back, with general loss of strength and vitality.

My urine was very bad, with a heavy sediment of brick-dust, which was fast leading to gravel. I commenced using Hunt's Remedy, with a marked improvement from the start; the pains left, the urine became more natural, and I can truly say *one bottle effected a permanent cure.*

I have recommended it to many persons both here and in Boston, all of whom speak of it with the highest praise.

You are at liberty to use this letter or my name in any manner you may think best, that other sufferers may learn the value of the greatest of all remedies. Most truly yours, JOHN F. COX, 62 Pleasant Street.

Malden: Mass., April 23, 1883.

A professor in the university at Ghent recently testified as an expert in a lawsuit in Brussels, that the popular idea that copper is injurious to health is nothing but a prejudice. He related in confirmation of his testimony, that he, his wife, and children had taken large doses of the salts of copper without experiencing anything but beneficial results from them.

SPARTA, TENN.—Dr. W. B. Cummings says: "I am strongly convinced of the efficacy of Brown's Iron Bitters and recommend them."

A superior varnish that will protect the wood of saddle trees from the effects of water, and also act as a preventive from injury by perspiration upon glue and joints, is made of one pound of amber gum, one pound of balsam of fir and one and one-half pounds of oil of turpentine.

"Rough on Corns."

Ask for Wells' "Rough on Corns." 15c. Quick, complete, permanent cure. Corns, warts, bunions.

Great care should be taken, where tools requiring an accurate edge are to be ground, to keep the face of the stone true. This may be effected by hanging a pair of grindstones so that their faces shall touch. Their rotation thus causes each to wear away the inequalities of the other.

According to L'Electricite, Fri Paolo Sarpo is said to have anticipated some of the results of Gilbert on magnetism.

Emory's Little Cathartic Pill—best made for Liver Complaint and Billousness. Tasteless, harmless, infallible. 15c.

A certain fungus (*Archorion schanlinii*) produces in rodents a fatal cutaneous disease, and Drs. Joseph and Crampe propose taking advantage of this fact as a means of destroying field mice. They would apply the fungus to the skin of captured mice, and then turn the captives loose to spread the infection.

As a cure for Heart Disease, nervousness and sleeplessness, Dr. Graves' Heart Regulator is unsurpassed. 30 years' trial prove it. $1. per bottle at your druggist.

A substitute for india-rubber has been invented by MM. Dankworth and Landers, of St. Petersburg. It is composed of a mixture of wood and coal-tar linseed oil, ozokerit, spermaceti and sulphur, which are thoroughly mixed and heated for a long time in large vessels by means of superheated steam.

Catarrh of the Bladder.

Stinging irritation, inflammation, all Kidney and Urinary Complaints, cured by "Buchu-paiba." $1.

In a recent treatise, Dr. L. Manouvrier, a French craniologist, states that the cranium is heavier in negro races than in any others that have been subjected to comparison, so that the proverbial thickness of the negro's skull has a foundation in fact. The skulls of Papuans and natives of New Caledonia are heavier than those of Parisians, while those of the American aborigines and of the Bengalese are lighter. The weight of the female cranium is about one seventh less than that of the male.

A full feeling after meals, dyspepsia, heart-burn and general ill-health relieved by Brown's Iron Bitters.

A non-conductor of electricity has yet to be found, for all substances hitherto discovered are conductors of the force under certain known conditions, but those which offer a great resistance to it serve the purpose of non-conductors in practice, although they may all be either classed as good or bad conductors. The best conductor known as yet is silver. The worst conductor is paraffine.

The fruit put up in tin cans should be taken out when the can is opened for use. If allowed to remain after the can is opened the action of acid juices upon the tin when exposed to the air may form acetate of tin, which is poisonous. Pour the fruit out into glass or earthenware dishes, and the danger of poisoning is avoided.

A contemporary maintains that the persistent use of the microscope is the only means whereby the necessity for a change of yeast in brewing can be ascertained, and that the examination must be kept up from day to day. As soon as the cells are seen to become elongated and lose their rotund shape there is something wrong.

Beet-root sugar is now admitted to be quite distinct from cane sugar. Its sweetening power is 30 per cent. lower at least, but its polarizing power is greater.

Regeneration for Enfeebled Systems.

Suffering from a general want of tone, and its usual concomitants, dyspepsia and nervousness, is seldom derivable from the use of a nourishing diet and stimuli of appetite, unaided. A medicine that will effect a removal of the specific obstacle to renewed health and vigor, that is a genuine corrective, is the real need. It is the possession of this grand requirement which makes Hostetter's Stomach Bitters so effective as an invigorant. It does not merely import a fillip to appetite, but by invigorating enables the stomach to satisfy its wants without bodily disturbance, and with thoroughness. In all disorders accompanied by a want of tone in the digestive organs, obstruction of the bowels and biliousness, it exerts a beneficial influence, and one speedily felt. It conquers and prevents the recurrence of fever and ague, and rheumatism, checks an increasing irregularity of the kidneys and bladder, and affords convalescents and persons of delicate physique, material aid in recovering health and vigor.

AN elephant traveling with a great moral show at Barnesville, Georgia, was so enraged because a man gave it a plug of tobacco that it killed the donor with one terrific blow of its trunk. If it was the kind of tobacco they usually chew in Georgia the man deserved to be killed.

Dr. Kline's Great Nerve Restorer is the marvel of the age for all nerve diseases. All fits stopped free. Send to 931 Arch Street, Philadelphia, Pa.

A VERMONT man swallowed a dozen lead shot to cure a boil. They cured the boil, but they killed the man, so he didn't enjoy it half so much as he thought he would.

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The pills are warranted to be PURELY vegetable, free from all mineral and other poisonous substances. They are a certain cure for Constipation, Sick Headache, Dyspepsia, Biliousness, Torpid Liver, Loss of Appetite, and all diseases arising from the

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