### Animal Curiosities.

Two Good Cat Stories - Tricks of Animal Humbugs-Three Persons Fight With a Deer-Imprisoned by Woodpeckers-Wonderful Devices

" X CAT'S TENDERNESS. I was talking to a veterinary surgeon who makes a specialty of dogs and cats, and learned something about the latter animal that I never knew, says a writer in the Washington Star. Now that cats have become a fad, the information is of value. He says that the Teline race, instead of having less affection than dogs for human beings, have more. Not only do they become strongly attached to places, as is generally known, but to persons. Deaths from homesickness are very common among cats, and, of course, this ailment is incurable, and not only do they die because removed from the localities they love, but frequently the result of separation from people they are attached to proves fatal. A cat is not a friend to every person it allows to stroke it. A cat makes few friends, and those are very strong ones. It may live with a family for years and be thoroughly domesticated, and yet have no love for its master or mistress, separation will frequently cause the death of the animal, while a dog will become used to new masters.

TRICKS OF ANIMAL HUMBUGS. In military stables horses are known to have pretended to be lame in order to avoid going to a military exercise. A chimpanzee had been fed on cake when sick; after his recovery he often feigned coughing in order to procure dainties. The cuckoo, as is well known, lays its eggs in another bird's nest, and to make the deception surer it takes away one of the other bird's I on an August day not long since eggs. Animals are conscious of their pitched our camp at a spring on the deceit, as is shown by the fact that they try to act secretly and noiselessly; they show a sense of guilt if detected; they take precautions in advance to avoid discovery; in some cases they manifest regret and repentance. Thus, had for years, no doubt, made their bees which steal, hesitate often before dwelling place. Somewhat shy of us and after their exploits, as if they feared punishment. A naturalist describes how his monkey committed theft. While he pretended to sleep the monkey regarded him with hesitation, and stopped every time his master moved birds, with whose labors the warmth or seemed on the point of awakening.

#### NOTES ON LIONS.

The tongue of the lion is so rough that a close look at it will almost take that a close look at it will almost take tention was attracted by their shrill the skin off the looker. It is not safe outcries and the whirr of their wings to allow a lion to lick your hand, for among the branches overhead. It had if he licked the skin off and got a taste of the underlying blood, supposing it than we pushed back the flap of the to be there, he would want the hand tent door and peered out to ascertain everything adjoining thereto. Nothing more perfect in modern machinery exists than the mechanism by or ground owl, at the approach of day which a lion works his claws. He has had taken lodging in the hollow ocfive toes on each of his fore feet, and four on each of his hind feet. Each toe has a claw.

Nothing about a lion is without reason, and the reason he has more toes and claws on his fore than on his hind If this were not so, the majority would The lion is nocturnal be the other way. supposed that because he roams about at night he neglects his family. He der. He kills to eat, not for amusement. He never bothers small game so long as there is big game within When feeling fit, he can take an ox in his mouth and jump fences and ditches like a professional steeplechaser.-Westminster Budget.

\* \* \* \* THREE PERSONS FIGHT A DEER. A Saratoga, Wy., telegram says: A fearful battle took place at the ranch of J. H. Mullison last evening, one mile north of town, in which a mad buck and three people were the combatants. A tame deer owned by W. B. Cowan entered Mullison's premises, and when ne returned from town, attacked him ciously. He caught the animal by the ns, and until his strength gave out held it at bay. His wife and 12-yearold son came to his assistance, and all came involved in a desperate struge, lasting nearly an hour before they ald escape from the furious brute.

It was a frightful ordeal and the ground in front of the house bears evidence of the desperate struggle for life. The deer dragged them, mauled them, and trampled them in a fearful manner. They were covered with bru;ses, their clothing torn in shreds, and Mr. Mullison got two bad flesh wounds in his leg that will lay him up for some time.

After they had succeeded in getting away from the beast and dragged themselves to the house, almost fainting from exhaustion and loss of blood, the animal tried to get at them through a window. A charge of shot did not turn it from its purpose. Finally George, the boy, slipped out through a win dow, secured a horse and aroused the town. A posse of armed men went to the rescue, and the vicious brute was despatcaed with a couple of rifle bul-

BALLOONING SPIDERS.

I had climbed up the side of a canon In the Fierra Nevada, and sat looking up the green river that wound its way into the range, when my eyes caught what appeared to be a dainty bit of lace floating along. On it came, steadily that it seemed possessed with a certain intelligence, neither rising nor falling, as stray bits if chaff or down are wont to do, but moving in a direct line. No sooner had it passed than another came into view, then another, and then all at once the space between the two banks seemed filled with the floating objects, which might have been the ghosts of fairies, so delicate were they. As one floated quite near me, I put out my hand to catch it. Then I found that I had arrested a veritable balloon in its proress-an animal balloon, made by a delicate little aeronaut. I reached out and caught another. It, too, was a balloon, and it dawned upon me that I was watching the passage of myriads of aeronauts that were being drawn up the narrow canon by the current of air that flowed along so silently. But who were the aeronauts? other than spiders, each balloon being occupied by one, and I realized that it was a remarkable race, in which thousands of balloonists were taking part. As one of the delicate structures drifted against my arms the aeronaut stepped deftly from the car, and for a moment stood still, so that I had a rare chance to examine the dainty craft and navigator of the air. The balloon was a ball, or, rather, platform.

of fluffy web or silk that resembled

spun glass, and quite large enough to afford the spider ample room to rest

\*\*\*\* the car or basket of the balloon. As another ball came floating by, I discovered attached to it a slender thread of silk that seemed to be the support ing medium. It extended directly upward, and bent in the breeze, forming a delicate perpendicular column or sail. The little 'insect crawled up to the highest point of my coat sleeve, then, raising its spinnerets aloft, ejected a delicate thread. Every second it grew longer, and as it grew it rose directly upwards as if it was vastly lighter than the air. Up it went, higher and higher every moment, until I judged it to be three feet long, and then a very curious thing occurred. The spider was almost lifted from his legs. An other second passed, and then he appeared to be lifted again: then he turned and ran a few steps directly into the air; then turned again, and, head downwards, sailed away. So the thread The Royal of silk was, in reality, a balloon. The spider spins the thread out until the wind takes it and wafts it away. The the people. But when a cat really does | fluffy platform is formed later during the flight, and when complete the aeronaut rests upon it as securely as the human aeronaut in his basket. That the spider, a slow traveler, can make itself a balloon and journey across deep canons and raging torrents, is certainly an evidence, not only of its ingenuity, but of its intelligence.

IMPRISONED BY WOODPECKERS. Although the woodpecker is industrious, provident and peaceful, he is not to be trifled with or tyrannized tablelands of the ridge dividing Ujal from Santa Clara Valley, Cal. About the spring stands a large grove of live oaks. In one of these not far from the tent door a pair of woodbeckers at first, the birds in a few days paid little attention to our presence. It has frequently amused us of a sultry afternoon, as we lounged upon the buffalo robes laid on the grass, to observe the appeared to have little to do. We had camped there a week or ten

days, when before breakfast one morning we heard a commotion about the home of our staid neighbors. Our atno sooner grown light enough to see the cause of the disturbance. It soon became apparent that a little tecolote. cupied by the woodpeckers, to their consternation. But the return of day brought courage to the rightful owners, and they resolutely set about finding means to eject the intruder, They tried feet is that he has more use for them. to the hollow tree, but to little purpose other than to cause the tecolote to neck at them when they anneared to by choice. He has no particular objection to daylight, but likes to spend last, finding that neither threats nor be about to thrust themselves in it in the bosom of his family, or at entreaties were likely to be effective, least adjacent to it. It should not be and resolved that if they were to be deprived of their home it would be the last of that tyrannical owl, the woodroams in order to fill the family lar- peckers brought presently from another part of the grove an oak ball of the size of the aperture, and driving it tightly into the hole withdrew to another hollow tree, leaving the bird of prey hermetically sealed up. After several days, when we started to return to San Buenaventure, the ball was still in the hole, and the woodbeckers, settled in their new home, were going about their business as if there had never been a tecolote.

#### \* \* \* \* PUSSY'S FIERCE WHISKERS.

Nature is an economical dame, and

gave an animal or plant an appendage of any kind, we may be sure that it serves some wise purpose.

Take a cat's whiskers, for instance, which may seem to you to be merely ornamental. They are organs of touch, attached to a bed of fine glands under the skin, and each of these long hairs is connected with the nerves of the lip. The slightest contact of these whiskers with any surrounding object is thus felt most distinctly by the animal, although the hairs themselves are

They stand out on each side of the lion, as well as the common cat. From point to point they are equal to the width of the animal's body. imagine, therefore, a lion stealing through a covert of wood in an imperfect light, we shall at once see the use of these long hairs. They indicate to him through the nicest feeling any obstacle which may present itself to the passage of the body. They prevent the rustling of boughs and leaves which would give warning to his prey if he were to attempt to pass close to a bush, and thus, in conjunction with the soft cushions of his feet and the fur upon which he treads-the claws never coming in contact with the ground-they enable him to move toward his victim with a stillness equal to that of a

#### PECULIAR CHINESE PARENTS. What They Are Apt to Do in the Case of Sickly Female Children.

It is a disagreeable fact that Chinese is one that an apologist for China would like to pass over in silence. On the other hand, nothing is gained by exaggeration, and as far as my most limited experience allows me to speak, it is enormous exaggeration to talk as if Chinese mothers exposed their daughters habitually and without a second thought. At any rate, the people of Fair Reply would repudiate the charge with amazement. "He hau kai, tso mak kai fit?" "If she is a good one why throw her away?" they

would ask. Why, indeed, when a girl of 10 in good health and fairly bonny will always fetch \$100; while each of the next five or six years will add \$10 to her market value? So remembering that from the age of 5 she will be useful to gather bambu husks for fuel mind the baby, feed the buffalo, and a year or two later cut fern dig up pistachio nuts and carry water, it will be seen that a healthy female child will be by no means an unprofitable investment. But if the calld be sickly, then it is different. The nasty little think looks so red and helpless and repulsive. If it dies within doors its fac-tious spirit will remain there, and add another torment to the teeming world a picture of a handsomer man than of devils that surrounds us. Better for himself, and had misrepresented his upon. This platform corresponded to all parties to deport the tiny spirit to position in life.

and think of something else. Charity might possibly accept some such re-vulsion of the maternal instinct in explanation, and the anthropologist will remember "nature," that "holy thing," and the case of the rabbits once so aptly cited in this connection .- Blackwood's Magazine.

# Missing kinks.

THE first Sunday law enacted on this continent was enacted in Virginia in 1817. It provided that the man who did not attend church on

from one to five pounds, and supposed to date from a period at least 2,000 years before Christ, are still in ex-

tate in his own country for his maintenance. They now propose to seize on the income from it in order to pay

The Royal Edinburgh Hospital for Sick Children was lately opened by her Royal Highness Princess Beatrice. The building is to cost about \$200,000. While going through it she presented each of the nurse with a silver commemorative badge.

NOTWITSTANDING her advanced age, Queen Victoria always drives out in an open carriage, even when the weather is cold or wet. But she is wrapped about with innumerable rugs, and when it rains one of the Highland servants sitting behind the carriage holds an enormous umbrella above her head.

TOLSTOI'S "Master and Man" has over with impunity, as the following just been translated into Turkish by incident will show: A companion and Mme. Lebedeva, who had previously translated into that language the greater part of the works of Pushkin and Lermontoff. She is now engaged in turning Seid Emir Ali's "Life and Teachings of Mohammed" into Russian, in order to encourage the Russian Tartars to read Russian.

THIEVES lately broke into the Church of Santa Maria in Trastevere at Rome, carrying of the communion plate and tearing off the gold ornaments and votive offerings from the image of the Virgin, whose head they broke off and threw in a corner. For days afterward the church was crowded with people who went to kiss the mutilated image and pray for pardon for the sacrilege committed.

OF THE 4,914 sealskins brought into Port Townsend, Wash., during the season just closed 3,650 were of female seals, an indication of the rate at which the seal herds are being destroyed. It is aid by those who have been with the sealing fleets that more than half of the females killed were either nursing pups or were graved. The skins brought into Port Townsend only represent about one-eighth of the total catch of sealing fleets.

A JASPER vase presented by the Czar of Russia to the city of Paris has bluffing awhile about the only aperture just arrived at Havre. It is made of ing into account the way such matters of the city of Paris on the other; the handles are female heads, one with Russian national headdress, representing St. Petersburg, the other with a Phrygian cap, the French republic; on the base are carved the words, "Cronstadt, Toulon, Paris." A BICYCLE boat has been invented

has been successfully operated on the waters of the harbor there at a seeed rangement at the stern. just as an ordinary bicycle is steered. never indulges in useless gifts. If she The boat shell is a steel framework covered with canvas, and the whole thing is kept right side up by a 250pound keel of lead. The inventor thinks he will be able to get much more than the present nine miles an hour out of his bicycle boat when he has perfected it.

LIQUID air is now manufactured on a commercial basis in Germany, the requisite cold being obtained by the agents. It is used for refrigerating, but is also valuable as a source of oxygen, for as the air liquefies it becomes richer in oxygen; the German product contains 70 per cent of oxygen, a sufficient degree of purity for many commercial purposes, while the gas may be further purified by the removal of the residue, which is chiefly nitrogen. An indirect result of the simplification of the process for liquefying air should be the production of argon large enough quantities to bring it within the reach of all students of chemistry.

THE remains of the late Lady Caithness are to be interred in a ruined Scotch abbey where, as she firmly believed, the spirit of Mary Stuart first appeared to her. Lady Caithness was 65 years old, and her death was due. more than to any other cause, to the worry of superintending the erection of her palace in the Avenue de Wagram. She was a woman of great executive ability, and though immensely rich, she personally managed her great parents are in the habit in certain fortune, and even dispensed with the circumstances of abandoning female services of a housekeeper. And it is infants to death by starvation, and it said that she had not discharged a servant for 25 years. She entertained magnificently, giving balls that were among the most celebrated in Paris, and in her own concert room, the finest hall of the kind in the city, she had lectures by the most distinguished persons of the day.

> THE uncertainties and danger in a courtship by correspondence were illus- it has entailed is allowed for in the trated at Marion, Ind., a few days ago. The afternoon papers told of a "romantic wedding," but the morning papers next day related a sorry sequel. A man in Marion in some way became acquainted with a young woman in Peoria, and in a six months' correspondence that followed the couple decided that fate had intended them for each other, though they had never All the arrangements were made for the wedding, and the young woman went to Marion and was married the morning of her arrival. After the ceremony the groom took his bride to the home he had rrepared, but she expressed grave disappointment, said she didn't like either him or his home, and started straightway back to her

## Profits of Monopolies\_



A Cotton Combine's Golden Career—Four Years' Profit Equal to Its Capital-Coddled Into Existence and Maintained by the Dominion High

by the Dominion Cotton Mills Company also for the statement that dividends the other day gave to the consumers ing these four years and a half amountof cotton in this country an interesting ing to \$902,500. This comes to an the person of the early French explorglimpse into the short but most re- average annual dividend upon the ers, and then the fire went out of its stock, with water left out, of 12 per own accord. The Scottish paraffine should be fined two pounds of tobacco. markable history of the cotton com-THE first known coin is Chinese. It bine's operations, or at least that poris copper, and specimens weighing tion which is carried on under the has been piling up to their credit at lubricating oil, about 2,000 tons of solid above name. This company commenced their bank a huge reserve fund, which paraffine, and much illuminating oil its career, it will be remembered, in the beginning of the year 1891. It grew WHEN King Thebaw of Burma was out of conditions which, brought about dethroned the English left him an es- by the N. P., made the cotton industry the easy prey of the monopolist per cent for each of the four years and by so nearly or altogether ruining the a half of the company's short but goldmill-owners of the country that they were "glad to sell to save a shred of their capital." The parent company was the Hochelaga, in which the promoters of the new company were largely interested. Around the nucleus of these mills, whose previous operations ferent names, but with a single head since their establishment in 1872 had resulted, we have been told, in only two annual dividends, the acquirement of other mills scattered over the country was carried on until there were in all ten mills gathered under the new company's roof. The situation of these mills is as follows: Hochelaga, Montreal, (two mills).

Magog, Quebec. Coaticook, Quebec. Moncton, New Brunswick. Kingston, Ontario. Brantford, Ontario, (two mills). Halifax, Nova Scotia. Windsor, Nova Scotia.

HOW MILLS WERE ACQUIRED. Those which were purchased were purchased, if the transactions can rightly be called purchases, at a small percentage of their value. In some instances there was scarcely any element of what is ordinarily understood as purchase in the handing over by old companies of their properties to the combine at the combine's own figures. The alternatives open to the hrad-pressed companies were either to take what was offered them, whether it happened to be 25 cents on the dollar or a less generous offer, or refuse it and be utterly ruined by the powerful forces of the coterie of rich Montrealers who have organized themselves for the purpose of taking the cotton industry cartive.

The paid-up stock of the new com-

when it started upon its work was \$1,500,000. How this was paid up is not known; neither how much was paid in eash nor how much was issued upon mill properties put in by the chief promoters. Unfortunately only such information has been made public by the promoters as the working out of their plans has made necessary. In part the acquired properties were paid for by bonds, but in all likelihood, takknown, is eight feet high, with the Russian arms on one side and those upon which the stock was issued were not, to say the least, unduly depressed. It is therefore reasonably certain that first issue of paid-up stock is some distance from representing cash cash value put into the company. But not to seem to strain the facts against the combine, that first \$1,500,000 issue by a telegraph operator in Seattle, and may be regarded a bona-fide paid-up stock.

EMBARRASSMENT OF PROFITS. At that figure the stock remained for of nine miles an hour. It is a combin- the period of a year and eight months. ation of whaleback boat and bicycle. Then the company decided, for rea-Described in the simplest way, it is a sons which will be explained, to pour boat with a bicycle mounted amid- some water into it. The following deships, the power exerted on the pedals cision was made public on the 7th Sepbeing transferred to a propeller ar- tember, 1892: It had been determined, The rudder it was said, to distribute to the shareis operated by the bicycle handle bar, holders \$1,500,000 of stock, the distribution to be made in the proportion in which the stock was held. shareholder to become entitled to receive a fully paid up share of \$100 by paying statement, which was given as coming from the company, with regard to this proceeding was candid to the point of ingenuousness. It was said that while the company had been paying only 8 and 10 per cent dividends its profits had been from 22 to 27 per cent. That was the statement made public at that rapid evaporation of the product itself, time. Quite lately we have been given thus dispensing with the expensive in one of the company's prospectuses process of using intermediary cooling the actual figures. These show that the profits for the first year (ending 29th February, 1892) amounted to \$448,-615, or 30 per cent upon the paid-up stock. In the second year they were still larger, the published figures being \$589,290, equal to 39 per cent upon \$1, 500,000 of stock, with which profits the watering operation was a natural outcome of combine methods. It would not have been wise from their point of view to appear to be paying too high Political dividends. alone would seem to be sufficient to require that this infant industry should throw some cover over its distribution of profits. What defense, for instance, could a Government make on behalf of the cotton duties, which are as the citadel of the monopoly, if this "struggling" combine were to pay dividends of from 29 to 39 per cent per annum? It was accordingly determined to double the shareholders' holdings stock. The \$1,500,000 of new stock was distributed, with the effect that while only \$150,000 of cash went into the company's treasury, the dividend-bearing capital was doubled. At this amount of \$3,000,000 in round figures it has since remained. ant to remember, as the kernel of the

Of this three millions it is importwhole matter, that the amount actually invested by the shareholders is only \$1,650,000-allowing that the original stock was not issued in exchange for mill properties put in upon inflated valuations. The company's bonded indebtedntss may be left out of the calculations, as the interest charge which company's statement of profits from which these figures are taken.

RICHER THAN KOOTENAY. The statement of profits is as follows:

For the year ending Feb. 20, 1893 ...... 589,294 For the year ending Feb. 20, 1894 ..... For the year ending Feb. 20, 419,972 31, 1895...... 212,171

half which the combine has been operating, this section of it (the Dominion Cotton Mills Company) has made proshould, that portion which is admit- When the shale had burned for the al- white bull with a red nose,

The prospectus which was published | tedly water. The company is authority have been paid to shareholders dur-This was all they thought it prudent to distribute out of their enormous profits. But besides this there on Aug. 31 last, by their own statement, amounted to \$1,075,167. The average profits each year have been \$490,-000—reaching in one year 39 per cent upon the paid-up stock, and equivalent to an average annual dividend of 29 3-4

THE OTHER BRANCHES. This is not all; it is but a small part of what there is to be said of the operations of the combine. The Dominion Cotton Mills Company is only one section of the organization which, under two or three charters and as many difand purpose, has laid the consumers of driven off, the temperature of the cottons under ransom. The working of whole rises, and the next hydro-carthe Canadian Colored Cotton Mills bon of the series will be obtained. Each Company and the Montreal Cotton kind of oil is specially treated and re-Company, which are under a common fined. presidency, with the Dominion Company, would show, we are convinced, if they could be examined, the same halcyon state of things which have, by the necessities of its financing, been revealed within the past few days with regard to that com-The authorized capital of the Colored Cotton Company is \$5,000,000, while as for the Montreal Cotton Company, its shareholders have also been lately perplexed with the perplexities of swollen profits. This is a company matches and for modeling fruit, flow-of which one of the combine's defenders ers, etc. in Parliament declared that, although it had been in existence since 1879, it the Lambton shales, but in what prohad paid only one dividend until within the past few years. But at its annual meeting, held on the 7th of February, 1893, the statement was made that the profits of the year had been such that in addition to the dividends which had been declared upon the capital stock. the amount carried to the surplus reserve had been so large that it was thought to be advisable to increase the nominal stock from \$1,000,000 to \$2,000,-The directors were accordingly empowered to obtain the increas There is a sameness of methods and a singleness of purpose among these cotton lords which would indicate that they are of one family, even were there not more definite authority for the be-

Outside of all this much remains to be said with reference to the working of the cotton duties, as well as with reference to the dictatorial attitude which the combine has assumed toward the whole body of Canadian importers, and against which some of the most prominent wholesalers in Toronto are in revolt. Meanwhile, without going into these matters, it is perhaps worth while to add one further parof slightly under 28 per cent, whereas for the year 1894 the average rate calculated in the same way was slightly over 28 per cent.-Toronto Globe.

## Western Intario Shales

Some Remarkable Rocks in Western

Ontario.

Similiar to That From Which Faraffine Is Manufactured in Scotland. The Laurentian Ridge, running from the St. Lawrence River in a northwesterly direction from the Arctic Ocean. is regarded as the oldest land in the world. From it in every direction ran many changes in the topography of as regards emoluments and duties. Canada were effected. In succession the Silurian strata north of Lake Ontario and the Devonian westward toward Lake Huron were deposited upon regard to the disposal of this valuable the ancient crystalline rocks forming bit of patronage. This dispute the bed of the western sea. Rocks of once more been revived by the death many kinds, "sandstones," "lime- of old Admiral Sir James Drummond, stones" and "slates," among the others were formed, and in the eastern part of Ontario were frequently disturbed by the intrusion of igneus rocks from the earth's molten interior. After the lapse of countless ages the shore of the western sea had retreated to the line of what is now Lake Huron and the St. | Queen's civil list. The perquisites in-Clair River. Great marsnes separated by narrow banks of sand lay along the margin of the ocean. Over the sand strip at every high tide the ocean broke. The marshes became salt water lagoons. These soon dried up. The salt beds of the Huron shore were thus deposited. In other places shale beds were formed. The one pest known is exposed at Kettle Point, on Lake Huron. There we come to the coal rocks. Ontario just missed being the proud possessor of coal measures.

As it is, shale is a most valuable rock. Formed chiefly from silica and alumina, it is the material from which fire brick is manufactured. It is also the material from which slate pencils are made. Often it contains pyrites of iron, and by natural distillation alum is produced. In England 16,000 tons of alum a year are obtained from the shale rocks. But probably the most valuable product obtained from shale is paraffine. From 30 to 70 gallons of crude oil are obtained from a ton of the rock. The paraffine, it is claimed, can be obtained in a purer state from shale than from petroleum.

The shales of Kettle Point are certainly carbonaceous, as they burn readily with a bright flame. From the appearance of the surface we are led to think that at one time they were on fire for a considerable period of time. By these figures the country is in- Deep beds of ashes cover a large some myth to account for every natural phenomenon, say that it \*/as foretold paid-up stock, if we include, as we of men should come to that shore. | neglects to appear



lotted period the white man came, in works are of great importance. In a year, 800,000 tons of shale were consumed, and over a million gallons of and benzine were produced. The process of manufacturing is as follows:

The shale rock, easily broken up, is reduced to pieces about the size of road metal, and filled into horizontal retorts. These are heated to a lowered heat. The oil distills over and coke remains in the retort. The oil is refined by treatment with sulphuric acid and neutralized by caustic soda. Then by heating and what is known as fractional distillation, first the benzine, gasoline and similar light oils are obtained. So long as any light oil remains no rise of temperature can take place in the retort. When all the oil of any given specific gravity has been

The crude paraffine is purified by repeatedly mixing with light oils, then cooling and pressing to separate the softer parts of the paraffine. It is afterwards melted and the light oil driven off by blowing steam through it. It is next mixed with pulverized charcoal, and when that has subsided, the paraffine is run into moulds, a beautiful translucent, wax-like mass. Paraffine, besides being used for making candles, is also used in the manufacture of

There are traces of alum present in portion can be determined only by chemical analysis.

Occasionally shale beds contain carbonates of lime, and there are curious spherical bodies The hand that built the in it. firmanent fashioned these globes in a manner known only to himself. Off Kettle Point these spheres are of unusual size, and it is from their kettle-like appearance that the point receives its popular name. It is named Cape Ipperwash on many maps.

These shales have been often mistaken for coal seams. Periodically we hear that coal has been discovered, somewhere in what is undoubtedly Silurian or Devonian strata, in which no true coal has ever been found. What has been regarded as coal turns out to be shale. Attempts made to develop shale beds as coal mines must result in disappointment. To develop them as bituminous shales or as sources from which alum, fire clay or other valuable commercial products may be obtained, would be quite practicable.

It is probably from these Lambton shales that the wells at Petrolea derive their oil. Under conditions of great ticular. The question may be asked pressure the oil would be naturally whether the Government did not strike at the combine by reducing the cotton Point shales is very considerable. Borduties at the time of these Kettle duties at the time of the tariff revis- ings 125 feet deep did not reach the ion. The only answer which need be bottom of the strata. If the young returned is that for the year preceding men of Canada who are enterprising the pretended reduction the amount on were to form companies and go to work duty collected upon the imports of cot- in earnest to develop our resources intons was equivalent to an average rate stead of going to South Africa to work Kaffir gold mines, they would probably find it pay better in the end. Canada in undeveloped wealth and in opportunity is second to no country on the planet. There are other sources of wealth as little appreciated as the shales of Kettle Point.

G. B. KIRK.

STICKS OF THE BRITISH COURT.

Odd Officials Who Have Little To Do, But Draw Big Pay. Among the many queer offices of the

English court and crown are what are known as Gold and Silver Sticks and the Black Rod. They are so called on account of their wands of office. Gold Stick and Silver Stick are in

variably military officers of a high rank. Field Marshal Lord Wolseley held the former office until appointed to succeed the Duke of Cambridge as commander-in-chief of the British army. The Earl of Erroll, as colonel commanding the Royal (Horse Guards rivers into the Paleolithic ocean, bear- figures as Silver Stick. Black Rod ing the debris into this most ancient however, is not necessarily a military of the continents. From it in much man, although the last two holders of later times, in every direction spread the office have been a general and an out those glacial streams by which so the most important of the three, both admiral respectively. Yet it is by far

Indeed the perquisites attached to the post are so extensive tht there is invariably a fight between the mon arch and the Cabinet of the day with and matters have been complicated b the clamor of the Radical press and politicians, who demand, if not aboltiion of the office, at any rate the cutting down of its salary and the abolition of its perquisites. The salary amounts to \$15,000 a year, two-thirds coming from the revenues of Parliament and the remainder from clude a furnished residence of some twenty or thirty magnificent rooms in the Palace of Westminster, lighted, heated and kept in repair at the cost of the Government, and also an apartment at Windsor Castle.

black rod itself is an ebony wand three feet long, tipped with silver gilt, the royal arms at one end, 3. couchant lion at the other, and in the middle a gilded roo. A tap with this rod constitutes the legal arrest of state delinquents, and for every such arrest Black Rod is entitled to \$25. the reign of Queen Elizabeth Black Rod has ben dignified with a superb gold collar and badge. When the House of Commons is ordered, as a body, to attend the sovereign or her commissioners in the House of Lords, it can only be summoned by Black Rod, who is "Chief Usher of the Kingdom," and must be a "gentleman of the blood and coat armor." His appointment entitles him to knighthood.

There are only two other dignitaries of the crown who have sticks, or wands of office-the Lord Chamberlain and the Lord Steward of the royal household. Each carries at all sta functions a long white wand, which on the death of the sovereign is broke across the coffin in the most solemn portion of the burial service.

A queer custom is observed on the formed that for the four years and a area. The Indians, who have usually Duke of Buccleugh's Warwickshive estate on the 11th of each November His tenants gather together before sun that these rocks should take fire and rise to pay the wroth silver due to h fits exceeding by more than \$300,000 its burn for 100 years, or until a new race grace. The penalty for a tenant who is to produce a