HEALTH.

Milk a Microbe Killer.

The results of Dr. Freudenreich's experiments, as now published in the Annales de Micrographic, are of first-rate importance. He finds that the cholera bacillus, if put into milk drawn fresh from the cow, dies in an hour, and in five hours if put into fresh goat's milk. The bacillus of typhoid fever takes 24 hours to die in cow's milk, and 5 hours in goat's milk. Other microbes suffer a like fate in varying periods. By this showing, fresh milk is a bactericide or killer of disease—causing micro-organisms. But Dr. Freudenreich's researches go yet further than the foregoing. He finds that milk, maintained for an hour at a temperature of 57 degrees (131 deg. F.), loses its power to kill microbes—a statement which is of interest in face of the common teaching which takes the purification of milk depend upon its being boiled. Again, the microbe-killing properties of milk become weaker the older it gets. Cow's milk after four days, and goat's milk after five days, cease to have any effect upon micro-organisms. The conclusions, at any rate, are altogether in favour of the consumption of fresh milk.

Feeling in the Bones.

People usually imagine that their bones are of soldid mineral construction, without any feeling in them. No one who has ever had a leg or an arm cut off is likely to indulge in such a mistaken notion. Comparatively speaking, little pain is felt when the flesh is being cut through, but when the bone is attacked by the saw, Oh, my!

You see, as a matter of fact, there are blood-vessels and nerves inside the bones just as there are outside. Anyone who has purchased a beefsteak at the market knows about the marrow in the bone. It is the same with other animals than the bullock, including human beings. Through the marrow in the bone. It is the same with other animals than the bullock, including human beings. Through the marrow run the nerves and blood-vessels, entering the bones from the flesh without by little holes, which you can see for youself any time by examining a skeleton, or part of one. When the disease called rheumatism, which no physician understands, affects the nerves within the bones, no way has been discovered for treating it successfully. It does not do to smile when a person says that he feels a thing in his bones.

A Healthy Skin.

The scarf-skin is being constantly cast off in the form of minutes powdery scales; but these, instead of falling away from the skin are retained against the surface by the contact of clothing. Moreover, they become mingled with the unctuous and saline products of the skin, and the whole together concrete into a thin crust, which, by its adhesiveness, attracts particles of dust of all kinds—soot and dust from the atmosphere, and particles of foreign matter from our dress; so that in the course of a day the whole body, the covered parts least, and the uncovered most, becomes covered by a pellicle of impurities of every description. If this pellicle be allowed to remain, to become thick and establish itself upon the skin, effects which I shall now proceed to deal will follow. In the first place, the pores will be obstructed, and, in consequence, transpiration impeded, and the influence of the skin, as a respiratory organ, entirely prevented. In the second place, the skin will be irratated both mechanically and chemically; it will be kept damp and cold, from the attraction and detention of moisture by the saline particles, and possibly the matters once removed from the system may be again conveyed into it by absorption. And thirdly, foreign matters in solution, such as poisonous gases, miasmata, and infectious vapours, will find upon the skin a medium favorable for their suspension and subsequent transmission into the body. These are the primary consequences of the neglected ablution of the skin.

Let us now inquire what are the secondary or constitutional effects. If the pores be obstructed, and the transpiration checked, the constituents of the transpired fluids will necessarily be thrown upon the system; and as they are injurious, even poisonous, it retained, they must be removed by other organs than the skin. Those organs are the lungs, the liver, the kidneys, and the bowels. But it will be apparent to every one that if these organs equally, or one more than another, which is generally the case, be called upon to perform their own office, *plus* that of another, the equilibrium of health must be disturbed and the oppressed organ must suffer from exhaustion and fatigue, and must become the prey of disease. Thus obviously and plainly habits of uncleanliness become the cause of consumption and other serious diseases of the vital organs. Again, if the pores be obstructed, respiration through the skin will be at an end, and as a consequence, the blood, deprived of one source of its oxygen, one outlet for its carbon, the chemical changes of nutrition will be insufficient, and the animal temperature lowered, and the effects of cold manifested on the system, and the re-absorption of matters once separated from the body will be the exciting cause of other injurious disorders. The third position offers results even more serious than those which precede. If a pellicle of foreign substance be permitted to form on the skin, this will inevitably become the seat of a detention of miasmata and infectious vapours. They will rest here previously to being absorbed, and their absorption will engender the diseases of which they are the peculiar ferment.—[*Wilson's Treatise.*

Care of the Hair.

In all soberness the more common causes of baldness are insufficient exposure of the hair to the sun and air, close, ill-ventilated hats, excessive mental work and worry, the influence of hereditary, alcoholic and other excesses, constant washing and the neglect of the use of some proper stimulant at the roots. Children should, as much as possible, do without caps; and hats, when worn, should be roomy and of a light description. During the hot season, a stout hat is necessary for the prevention of sunstroke. A head-covering should never be worn indoors, in trains, or in closed carriages. The kind of material employed is of importance. In summer straw appears to be the best, on account of its lightness and permeability. In winter, hats made of light felt ventilated and unlined, are recommended. The ordinary tall and thick, heavy, unventilated hat cannot be too strongly condemned. Constant washing of the hair is unnecessary, as well as harmful. Once a week is quite often enough for cleanliness, as well as for maintaining the strength of the hair. The same remark applies to continual brushing, especially with hard brushes. There is a notion that greasing the hair is vulgar. After the hair has been washed, it is certainly beneficial to apply sparingly some form of simple grease or oil, otherwise it is apt to become dry and brittle. Bear in mind that every individual hair is a hollow tube whose life essence is taken in at its roots by a purely natural process. Keep the scalp clean and moderately cool and let Nature have her way. A bald-headed Indian or cow-boy would be a curiosity.—[Hall's Journal of Health.

Snails for Consumption.

Many of the alleged discoveries in medicine are after all little more than revivals of very old theories, says a St. Louis doctor. One of the latest fads for the treatment of consumption is the snail cure, which is said to have been tried and found successful. There is nothing new in this, for in an old medical work, published in 1746, copies of which are still to be found in several libraries, there is a long account of a mixture of garden snails and earth worms will cure consumption, and from more recent books the fact can be gleaned that this very objectionable remedy has been popular in the South of England and in Wales for years, being regarded as superior in every respect to drinking cod liver oil.

The Sabbath Chime.

The atoning work is done,
The Victim's blood is shed,
And Jesus now is gone
His people's cause to plead;
He stands in Heaven their great High Priest,
He bears their names upon His breast.

He sprinkles with His blood
The mercy-seat above;
For justice had withstood
The purposes of love;
But justice now withstands no more,
And mercy yields her boundless store.

No temple made with hands,
His place of service is;
In Heaven itself He stands,
A Heavenly priesthood His.
In Him the shadows of the law
Are all fulfilled, and now withdraw.

And though a while He be
Hid from the eyes of men,
His people look to see
Their great High Priest again;
In brightest glory He will come,
And take His waiting people home.

Golden Thoughts for Every Day.

Monday—

What were life
Did soul stand still therein, forego her strife
Through the ambiguous present, to the goal
Of some all-reconciling future? Soul,
Nothing has been, which shall not bettered be,
Hereafter. —[Robert Browning.

Tuesday—I strongly recommend you to follow the analogy of the body in seeking the refreshment of the mind. Everybody knows that both man and horse are very much relieved and rested if, instead of lying down and falling asleep, he changes the muscles he puts in operation; if instead of level ground he goes up and down hill, it is a rest both to the man walking and the horse he rides; a different set of muscles is called into action. So I say, call into action a different class of faculties, apply your minds to other objects of wholesome food to yourselves as well as of good to others, and, depend upon it, that is the true modo of getting repose in old age. Do not overwork yourselves; do everything in moderation.—[Lord Brougham.

Wednesday—

Great God, to thee my evening song.
With humble gratitude I raise;
O let thy mercy tune my tongue,
And fill my heart with lively praise.
My days unclouded as they pass,
And every onward rolling hour
Are monuments of wondrous grace,
And witness to thy love and power.
—[Anonymous.

Thursday—Besides this the mind of man itself is too active and restless a principle ever to settle on the true point of quiet. It discovers every day some craving want in a body which really wants but little. It every day invents some new artificial rule to guide that nature which, if left to itself were the best and surest guide. It finds out imaginary being prescribing imaginary laws; and then it raises imaginery terrors to support a belief in the beings, and an obedience to the laws. Many things have been said, and very well, undoubtedly, on the subjection in which we should preserve our bodies to the government of our understanding; but enough has not been said upon the restraint which our bodily necessities ought to lay on the extravagant sublimities and eccentric rovings of our minds. The body, or, as some love to call it, our inferior nature, is wiser in its own plain way, and attends to its own business more directly, than the mind with all its boasted subtlety.—[Edmund Burke

Friday—

Then welcome each rebuff,
That turns earth's smoothness rough,
Each sting, that bids nor sit nor stand, but go!
Be our joys three parts pain,
Strive, and hold cheap the strain;
Learn, nor account the pang; dare, never grudge the throe!
—[Robert Browning.

Saturday—The author of nature has not given laws too the universe which, like the institutions of men, carry in themselves the elements of their own destruction. He has not permitted in his works any symptom of infancy or old age, or any sign by which we may estimate either their future or their past duration. He may put an end, as He no doubt gave a beginning, to the present system at some determinate period of time; but we may rest assured that this great catastrophe will not be brought about by the laws now existing, and that it is not indicated by anything which we perceive.—[John Playfair.

The Wonderful Remedy.

A straight wisp of faded hair stuck out from the small coil at the back of her head.

"Air you the druggist?" she asked.

"I am, madam," he replied.

"Keep all the modernest remerdies, s'pose?"

"Certainly."

"Got any o' this yer bichlorate o' gold?"

"We have the bichloride, yes, madam. We are Dr. Keeley's exclusive agents."

"Same thing they gives to drunkards to break 'em o' drinkin'?"

"Precisely."

"Does it cure drinkin'?"

"Makes a man hate it."

"Will it cure fits?"

"Certainly."

"Cure a man o' chawin' terbacker?"

"Our guarantee goes with every bottle, and there is a hypodermic syringe in every package."

"Go 'way."

"Yes, indeed. This is a most wonderful discovery. There have been thousands of cases—"

"Does it make a man come home reg'lar o' nights?"

"If it does not, we will cheerfully refund the money."

"Jest nacher'lly breaks a man o' every bad habit he ever had?"

"Madam, the moral renovation experienced by patients submitted to this treatment is comparable only to the absolute purification and rejuvenation—"

"Hold on, mister. Will it cure snoring?"

"Snoring, madam, is a concomitant of drunkenness. Yes, ma'am, it will cure snoring, swearing, proud flesh, corns—"

"I'm onto yer, mister, for one bottle. Ef it'll cure my old man o' snoring, I'll try it myself for corns, which is my weakness."

CANADA'S DEFENCE.

A Brief Discussion in the Imperial Parliament.

In the Imperial House of Commons on Monday on a motion to go into committee of supply, the Hon. Sir Henry Stafford Northcote, Conservative member for Exeter, took occasion to move that the House of Commons urge upon the Government the necessity of immediate steps to complete the harbor of protection at Esquimault, British Columbia, which is the station for Her Majesty's fleet in that section of the Pacific. Sir Henry argued that the route from Great Britain to Asia by way of the Canadian Pacific route would not be secure unless steps should be taken to make Esquimault harbor safe for the protection of commerce.

Rear Admiral Edward Field, Conservative member for Eastbourne, supported the motion of Sir Henry, urging that the defence of British-Canadian interests imperatively required that the Government push to a completion the work at Esquimault.

Mr. William H. K. Redmond, Nationalist member for Fermanagh, said that the defence of Esquimault was of more importance to England than to Canada, and that England's action had not been generous toward the Canadians in insisting that they should stand a share of the burden in excess of what they thought to be fair.

Col. Thomas Waring, Conservative, ridiculed the statement of Mr. Redmond and defended the Government.

The Right Hon. George Osborne Morgan, Liberal, said that in behalf of the Opposition he desired to approve the extremely fair attitude of the Government.

Secretary for War Stanhope, replying to Sir Henry Stafford Northcote, said he regretted that the fortification of Esquimault was not yet completed, and the more so for the reason that this made it an exception to other foreign stations, whose fortifications, with the single exception of Esquimault, have been brought to completion. The delay had been due to the reluctance of Canada to stand a fair share of the cost. Under the circumstances the Government would be unable to accept the motion.

Sir Henry withdrew his motion in deference to the wishes of the Government as expressed by the Secretary for War.

The discussion created a decided sensation, owing to the excitement on the Behring sea issue. It is believed that the object in putting forward the motion was to get the sense of the House as to how far the Government would be supported in a firm attitude as to the seal fisheries.

WILL NOT AGGREVATE THE STATES.

Another cablegram says that the British Admiralty has received a private report from Admiral Watson of the North American station giving a detailed account of the United States commerce, ship and engine building, and construction facilities. The shipbuilding firms, he states, in the interior of the United States, especially at Duluth, Milwaukee, Chicago, Detroit, Cleveland, Buffalo, Erie, and Bay City, could all be called upon in a short time to build ships which could be easily converted into ships of war, Admiral Watson's attention was called to this by Canadian shipbuilders who state that by the agreement of 1817 they are unable to provide for war. He suggests, therefore that the Admiralty throw a sop to the Canadians and build dockyards along the lakes, giving them the same advantages as Americans.

To this the Admiralty has replied: "Pooh! pooh! it is plenty of time to look into the matter when the United States show itself unfriendly. At present is no indication of unfriendliness, and the British Government is not going to throw away money merely tor the purpose of aggravating the United States Government and causing a speedy abrogation of the treaty."

How False Hair is Obtained.

The best false hair comes from France, where it is sold by the gramme at prices which vary according to quality and color. The most expensive false hair is the silver white variety, which is in great demand and very difficult to find. This is due to the fact that men grow bald in a majority of cases before their hair reaches the silver white stage, and women, whether bald or not, are not disposed to sell their white hair at any price. They need it themselves.

Still women growing bald must have white hair to match the scant allowance advancing age has left them. The chemists have taken the matter in hand and are abel to produce by decoloration of hair of any color a tolerable grade of white hair which, however, has a bluish tint not at all approaching in beauty the silvery softness of hair which has been bleached by nature

False hair of the ordinary shades is obtained in two ways. The better and more expensive kind is cut directly from the heads of peasant women, who sell their silken tresses sometimes for a mere song and sometimes for a fair price, according as they have learned wisdom. Every year the whole territory of France is travelled over by men whose business it is to persuade village maidens, their mothers and their aunts to part with their hair for financial consideration.

These men are known as "cutters," and there are at least 500 of them in the country always going from house to house, from farm to farm and through all the villages in all the departments, seeking subjects for their scissors. A good cutter averages from two to five heads of hair a day, and he pays from 2f. to 10f. for each. It is estimated that a single head of luxuriant growth weighs about a pound.

The false hair thus obtained—at the cost of the tears and regrets of many foolish maidens—is the finest in the market, and sells for an exaggerated price, which puts it beyond the reach of the ordinary purchaser. Besides it is evident, that the supply of genuine "cuttings" must fall far short of the demand for false hair. So the majority of this wavy merchandise is obtained—yes, ladies, I am exceedingly sorry, but it is the fact—from the rag pickers. These busy searchers of ash heaps and garbage barrels collect every day in the city of Paris alone at least 100 pounds of hair, which some hundreds of thousands of women have combed out of their heads during the preceding twenty-four hours. This hair, all mixed together and soiled, one would think, beyond redemption, is sold to hair cleaners at from $1 to $1.50 a pound, which shows simply that the fair sex of one city alone throws away annually about 300,000f. worth of hair, for which they afterward pay—and it is the same hair, mind considably over 1,000,000f.

The cleaning of this refuse hair is an operation which requires careful attention. After the hair has been freed from the dust and dirt and mud and other unpleasant things with which it has come in contact in gutters and slop buckets it is rubbed in sawdust until it shines once more with its pristine gloss, and then the process of sorting is begun, in the first place skilled hands fix the individual hairs in frames, with the roots all pointing the same way, and then they are arranged according to the color. Finally, when a sufficient number of hairs of one color have been obtained—nor is this number so immense as is generally supposed—they are made into the beautiful braids which are shown so seductively in the windows of the fashionable coiffeurs. If, as the good book says, wisdom goes with hair, she who places on her head one of these conglomerate braids might be said to receive a portion of the wisdom of hundreds of thousands of other women who had worn those hairs before her.

It is said that the "cutters" in France have plied their trade so industriously that at present it is hardly possible in the whole republic to find a woman who will sell her hair. The business has been done to death, and now the enterprising dealers in false hair are sending their representatives through Switzerland, Belgium, and Norway canvassing for unsophisticated lasses who will allow themselves to be robbed of their hair, which is half of their beauty, for a few pieces of silver.

Red Snow.

A man in Massachusetts, while walking in the woods a few days since, found the snow which lay among the trees filled with myraids of small scarlet worms. Several acres were covered with them, and they were so numerous that they gave the snow a crimson tinge. The worms were about three-eights of an inch long and as brilliant as cochineal. They were found after a brisk snow squall, and were evidently deposited by the falling snow.

Red snow is not a remarkable phenomenon, but to find snow reddened by worms nearly a half an inch in length makes one suspect the accuracy of the story. Color in snow is caused sometimes by minute forms of vegetable matter and sometimes by animalculæ, but in either case the constituent particles of the color are of microscope size only, and not three-eighths of an inch long. If this story be true the snow squall must have struck a bonanza of worms somewhere and unearthed it, carrying worms on the wings of the wind, and finally dropping them in the Massachusetts forrest.

For many years colored snow was deemed a most awful portent, its color being associated with blood and considered a sure prognostic of death and disaster. At length however, science directed its attention to the phenomenon, and it was soon discovered that the color of the snow was due to the presence of a vegetable growth known by the generic name of hæmatoceus and to animalculæ called yhilodina roseola, and this took all the terror out of red snow except such as might be inspired by the length of these scientific names.

In Norway, Sweden and other countries in high northern latitude the presence of colored snow is not at all unusual, but in lower latitudes it is more rare. Those who have seen it describe it as being beautiful, but at the same time unnatural looking, probably because we are accustomed to connect snow with the idea of absolute whiteness. It is fortunate for the poets and cullers of similes that colored snow is rare, for otherwise half their stock in trade would be gone.

Vicious Kickers.

Dr. E. Usher, of London, fellow of the Royal Geographical Society and a sportsman of note, who has been in Arabia and other remote parts hunting for big game, has arrived home from North Queensland and the desert region known as the north territory in Australia. This is an enormous stretch of country, thousands of miles in area, infested by cannibals, in which are giant emus, nombat and whallaby. It was to hunt the emu that Dr. Usher made his trip there. "A party of us went up in that far north region," he said last night. "We were among the cannibals, who are great in size, being six and one-half feet high and physically perfect. It is a dry, sandy region for the most part. Emus in large numbers are to be found over this territory. We hunted them on horseback, and it was rare sport, for the reason that they can run as fast as a horse, and a very good one at that. We found the catching of emus almost as interesting as coursing, besides having a certain spice of danger about it. "An Emu can kick as hard as a horse. I have seen men kicked so hard by this vicious bird that their legs were broken. If I had my choice of being kicked by a horse or an emu I think I would take the horse. The emu stands on one leg and with the other strikes a quick and most paralyzing blow. I never would have believed that a bird had such power had I not had ocular evidence of it during this trip. After two or three men had suffered from terrible kicks of these birds we did not venture near them, but after running our horses till we got close enough would bring them down with our rifles. We did not approach them till we knew they were dead. We killed them for their feathers, although they are not so valuable as those of the ostrich. We also hunted for their eggs, which are to be found in the sand, but in doing this we took care not to collide with the emu. The eggs are more in the demand than the feathers. They are very beautiful and so tough that it is difficult to break them. Professional curio makers drill a hole in each end, take the inside out and then the shell is carved and mounted in silver. There are three layers of the shell and the carving is done so as to show three colors. The silver is set in the first layer, so thick is it, and when it is all carved, and ornamented by the silver it is handsome."

A Gallant Deed.

From a friend in India, the *Yorkshire Post's* London correspondent hears that Capt. Aylmer, the gallant engineer officer who blew in the door of the fort at Nilt with gun-cotton, has been recommended by Sir Frederick Roberts,—or, to give him his later title, Lord Roberts—for the Victoria Cross. All accounts received from Gilgit go to show that the exploit was one of no ordinary difficulty and dander. When the outer wall of the fort had been gained, a sort of courtyard had to be crossed in the midst of a galling fire, and then the gun-cotton had to be placed under the very muzzles of the enemy's guns. The operation was performed, however, without injury either to Capt. Aylmer or the gallant native sapper who assisted him, but in the scrimmage which ensued upon the blowing in of the gates the former had his thumb broken by a stone and was wounded in the leg and hand. Nevertheless he fought bravely on, firing no fewer than nineteen shots from his revolver before he allowed himself to be carried from the scene of action. Inspired probably by his example, the native troops fought like Trojans on the occasion, and several of them are to be recommended for the Distinguished Service Order, which is the native equivalent to the Victoria Cross.

He Cometh.

Belle—Oh, say, have you heard that May Savalle, who went as missionary to the Sioux, is going to marry a chief?

Blanche—No! How did you hear?

Belle—She told me so herself and showed me her engagement ring. It has the cutest kind of a quotation inside it.

Blanche—Really! What is the quotation?

Belle—"Lo, the bridgroom cometh!"

The Largest Ships Afloat.

The French five-master France is the largest sailing ship afloat. She was launched in September, 1890, at Patrick, and her dimensions are as follows: Length, 361 feet; breadth, 49 feet; depth, 20 feet. Her net register tonnage is 3,624 with a sale area of 40,000 square feet, and not long since she carried an enormous cargo of 5,900 tons of coal on her maiden passage from Barry to Rio de Janeiro without mishap after thirty-two days' sail, or within one day of the fastest passage on record. She is square rigged on four masts, but carries fore-and-aft canvas on the fifth mast. Her masts are only 160 feet high, nevertheless, she looks heavily sparred. This leviathan is fitted with a cellular double bottom, and can carry 2,000 tons of water ballast, thus reducing the expense of ballasting to a minimum.

The largest British ship is the Liverpool, 3,330 tons, built of iron, on the Clyde. She is 333 feet long, 48 feet broad, and 28 feet deep. Her four masts are each square rigged, but she is far from clumsy aloft, is easily handled, and has run fourteen knots an hour for a whole day. We were much impressed by her exceptional size, but for beauty she compares unfavorably with such a ship as the Thermopylæ, or a large wooden built ship of America, having bright, lofty spars and decks as white as a nound's tooth. Iron decks do not lend themselves rapidly to adornment. Next in size is the Pulgrave, of 3,078 tons.

The United States ship Shenandoah, of Bath, Me., built by Messrs. Sewal & Co., of that port, is the largest wooden vessel in existence. She is 3,259 tons register, and will carry about 5,000 tons of heavy cargo. She has just left San Franscisco, Cal., with 112,000 centals of wheat, worth $175,000. This is the largest grain cargo on record. Another wooden vessel, the Rappahannock, also built at Bath, Me., is 3,050 tons register, cost $125,000, and 706 tons of Virginia oak, together with 1,200,000 feet of pine timber, were used in her construction. The largest British wooden ship is the Three Brothers, 2,863 tone register, built at Boston, United States, in 1855. She is 313 feet long, 48 feet broad, and 31 feet deep. A further conception may be formed of the carrying capacity of such ships when we mention that the Liverpool brought 20,000 bales of jute from Calcutta to Dundee, and the Rappahannock took 125,000 cases of petroleum from Philadelphia to Japan.

Doubtful Friendship.

While not admiring the classical phraseology of the last sentence in the following editorial extract from the Toronto Telegram we cannot refrain from saying that the extract itself hits a good-sized nail plump on the head:

The New York Sun speaks approvingly of "our friends the Liberals." Its censure is more to be coveted by a Canadian party than its praise. It is the brightest of American newspapers, but even those who admire its ability despise the spirit that makes it the unreasoning enemy of Britain; the foe of every party that makes the nation's greatness its first care, and the friend of every faction that troubles the empire.

The Sun is a tpyical American newspaper. Never, even by accident, is it just to Britain, and not a good word for the greatest of countries appears in its editorial columns from year's end to year's end.

This is the journal that speaks of "our friends the Liberals."

That party through the errors of its wrong headed leaders has earned the approbation of journals that hate Canada and fear Britain. When Canada is choosing between its own parties, approval from the cultured Fenianism of the New York Sun is a poor recommendation for the faction that has earned its praise.

The idea that the Sun's praise is helpful to "our friends the Liberals" is an entirely superfluous proof of that journal's ignorance of Canada and the Canadians. The popularity of the Opposition in the United States has not been earned by devotion to the cause of its own country. The big but fat-headed journal in question does not see that in blessing the Grits it is giving the Tories occasion to be thankful for the enmity of "their friend the Sun."

Progress of the Bible.

Nothing in the triumphs of science or in the history of literature matches the progress of the Bible. How it was originally devised no one knows. Commentators cannot authenticate beyond cavil a page of its contents. Its age is wholly unknown. The identity of the authorship of many of its chapters remains unsuspected. No other work has been so critically tested. No other has suffered equally from ignorance and superstition. Yet age after age it has progressed in the world. Cherished by the early Christians, manual labor delighted in reproducing its sacred texts and artistic hands in numberless cloisters illuminated its margins. Diverse as must have been the fountains whence its streams have flowed, it became the great well of modern religious thought. Full of apparent contradictions, the church of the middle ages made it the basis of comprehensive sacred science, and by logic surpassing the skill of antiquity deduced from it a compact and formidable body of dogmatic creed which continues to hold its place in a practical world. When revolt overtook the ancient church every seceder from her dominion carried the Bible along as his dearest treasure. When printing became the preserver and disseminator of literature the Bible became the most popular of books. It is now. There is every reason for believing that it will continue to be."

The Bluebird.

You may expect him any time after the sun passes the winter solstice. In his musical engagements it is not a matter of dates, but opportunity. It is never a matter of importunity. Who ever heard a bluebird's song out of season? It may be cold and snowy to-morrow, but his wings tremble in the nervous ecstasy of the present, and he sings of the bit of spring that now is. When the storm comes then he is silent. He may flee before its breath, or, if it is late in the season, he will fold his wing, unstring his lute, and uncomplainingly wait till the vernal sun and wind shall come again. But let the merest slit of sunlight gash the cloud, and he warbles forth his greetings. He has been accused of trying to force the season. But it is not that.

I found a group once shivering against a March snow-storm. late as the sun was sinking, and stopped to watch them, pitying their distress. Suddenly there was some commotion, which I attributed to my presence and scrutiny—a low conversational chatter, a quivering of wings, a few flitting changes of position, and then a gurgle of spring melody among the snow-drops. Astonished, I turned to where the sun should be, and there, on the horizon's rim, its half-disk was burning like a beacon. Two minutes later it was out of sight, the air was gloomy, the snow fell on, but the morrow was a bluebird day, indeed.

THE MIGRATION OF BIRDS.

Why and How they come and go—A Puzzle for Materialist.

Instinct must be a great difficulty to the materialist; one of the greatest with which it has to contend. Whence is it? What is it? The secret tuition which directs the beaver to construct its dam, the squirrel to lay up its hidden stores, the spider to spin its silken web; the guiding impulse which in these latter days of the dying year in taking from us half our feathered friends, and bringing to us in their place a host of their hardier fellows. We have the facts. Every spring they come, every autumn they go. And as they arrive they meet others leaving, and as they leave they meet those others returning a double ebb and flow of feathered life. And surely enough of interest attaches to those periodical migrations without the need for prying into questions which we shall never be able to answer, and discussing problems which no finite mind can solve. And, after all, we do know the two great causes which act as the principal factors in turning birds twice a year into feathered pilgrims. One cause is climate, the other cause is food. A bird like the fieldfare, although hardier than its first cousin, the thrush, is nevertheless unable to bear the rigors of a northern winter, and so travels southward as soon as the leaves begin to fall. Sometimes even our winter is too severe for its constitution, and then it travels farther still, and spends just a few days with us on its return journey in the spring. The swift, on the other hand, a native of Northern Africa, can not endure the heat of a tropical summer, and so flies away northward in time to escape the pitiless scorching of an almost equatorial sun. Probably no bird is so sensitive to extremes of heat and cold. It leaves its home to avoid the heat, and yet suffers terribly if the air be chill in the land of its temporary sojourn. Often and often have swifts been picked up dying and dead in the later days of an English spring, chilled through and through by a biting northerly wind, or frozen by the cold blast which comes with the hail of a vernal thunder storm.

The question of food, of course, is dependent upon that of climate. Autumn frosts begin, and the insects disappear, and so the birds which prey upon those insects are perforce obliged to depart, driven hence not only by stress of weather, but also by want of food. But again, although our British Islands can not supply the swallow, and the swift, and the nightjar with the insects which they need, they can supply the redwing and the fieldfare with worms, and snails, and slugs, and hips and haws. And so we extend hospitality, as it were, to one class of birds, although compelled to refuse it to another, and the autumnal exodus is balanced by an autumnal immigration.

Much the same order is preserved by these travelling birds, both in their arrival and departure. The chiff-chaff and the willow-warbler ("hay-bird," the rustics call him) are generally the first to come, and usually the last to go. Sometimes one sees them even in the gusty days of March, and they linger on until the first frosts of autumn bring down the last remaining leaves from the trees. Close upon them follows the active little sand-martin, bound for the steep, saft-walled quarries wherein it can scoop out its odd little burrows with little exertion, and not much fear of molestation. Then one notices a house-martin or two, pioneers of the host which will appear a few days later; and then the fork-tailed swallows come; and last of all the swifts, which are seldom to be seen before the latter end of May.

The old ideas about these birds and their "hibernation" still linger, it seems, in some country districts. "One here" (Konigsberg), wrote Master George Boukeley somewhere about the year 1620, "in his net drew up a company or heape of swallows as big as a bushel, fastened by the legs and bills in one, which, being carried to their stoves, quickened and flew, and, coming again in the cold air, dyed." And in the pages of a popular almanac, published in the year of grace 1889, I find precisely the same statement made in all sober earnest—i. e., that swallows do not migrate, but at the approach of winter conceal themselves deep down in ponds or streams, and there, clinging together in great clusters, lie torpid until the warm days of spring call them once more to active life. Strange how these false old notions live on in spite of daily spreading knowledge.

The swift is one of the very few birds which do not seem utterly exhausted by their long journey over the sea. Five minutes after its arrival it is hawking for flies as actively as if it had just left its nest after a long night's repose, for its astonishing physique is scarcely susceptible of fatigue, and the untiring muscles are like so many rods and strands of tempered steel. Swallows are less vigorous, and are generally glad enough to rest awhile on the rigging of any vessel which they chance to meet. And when they reach the land at last one often sees them sitting in hundreds upon the shore, too wearied even to snap at the sand-flies which are flitting in thousands around them.

So with other birds as well. Their strength seems most accurately adjusted to the length of their journey, and the immigrants as they arrive drop upon the shore, utterly unable to fly for another hundred yards. It they chance to be blown out of their course by contrary winds, and find no place whereon to rest awhile, they perish. The gulls and the terns are better off, for they can sit on the sea itself and rest as long as they will. But the poor migrants, less favoured by their structure, have no such power, and to them to stop in their flight, unless to perch awhile upon the yards of some friendly ship, means death.

How these birds find their way to the exact spot which they left six months before is a puzzle indeed, yet so they do. A marked pair of swallows have known to return year after year to the very same spot beneath the eaves of the very same house, winging their way thither over some 3,000 or 4,000 intervening miles of land and sea. What a marvelous memory the birds must have thus to recollect all the details of a journey which they have taken perhaps but once previously, and that six or seven months before! For they must surely carry with them a mental map of the country over which they have passed, clear and distinct in every detail, indelibly photographed upon their tiny brains. Wonderful as is the instinct of the carrier pigeon, which brings it safely home from a distance of hundreds of miles, it is as nothing compared with that of these tiny migrants, in whose case the hundreds of miles to be traveled are replaced by as many thousands, and which have to journey in the first instance to a bourne wholly unknown.

I send some of my receipts among which here is one especially good when eggs are high.

CAKE WITHOUT EGGS.—Chop one cup of salt pork very fine, add one cup of boiling water, one cup of sugar and one cup of molasses, four and one-half cups of flour, one teaspoonful of soda, one-half pound of raisins and other fruit if you prefer.