

Science AND Invention

The fact that many profitable peach orchards exist on the eastern shore of Lake Michigan is explained by M. B. White as due to the influence of the lake in moderating the temperature along its eastern coast. This influence is less decided on the western side, the general direction of atmospheric movements being from west to east.

The average dietary of individuals in different countries varies greatly. An English statistician, R. F. Crawford, finds that an inhabitant of the United Kingdom consumes much more meat than a Belgian, Frenchman or German, but in smaller proportion of bread and potatoes. More bread and less meat are eaten in Belgium than in any other country considered, while a French peculiarity is the apparent small use of milk.

The experience of the French troops in the Sahara has shown that dark-colored horses bear great atmospheric heat much better than do those of a light color. A writer in Nature remarks that the same fact has been demonstrated in India, and adds that tropical animals generally have darker coats than are found upon those living in cold climates. Similarly the darkest-skinned races of mankind inhabit the warmer countries.

Before a meeting of the Biographical Society of Washington, W. A. Orton described the result of experiments made to determine the cause of flow of maple sap in early spring. His conclusion was that the flow has a mechanical cause, being due to the increasing heat which expands the gases in the wood cells, and thus forcibly expels the sap. This contradicts the view that the flow of sap is due only to physiological action in the plant.

The records of the Geological Survey in Washington establish the fact that the loftiest known mountain in North America is Mount McKinley in Alaska, about 200 miles from the shore of Cook Inlet. The aboriginal name of the peak is Tralega. It is 20,464 feet high. This is not far from the elevation of Mount Chimborazo, the highest peak of the Andes, and is 2,440 feet greater than that of Mount St. Elias, which was at one time believed to be our loftiest mountain.

It is known to everybody that silk is electrified by friction. Acting upon the suggestion thus furnished, a French savant, Monsieur Henry, has made experiments which show that the electrification of the air enclosed in a tissue of silk produces a circulation of its particles which tends to equalize the temperature. A similar effect is observable in wool, and hence the superiority of silk and wool for garments intended to protect the body against vicissitudes of climate.

While Asia has the loftiest mountains in the world, it also possesses the deepest and most extensive land depressions, several of them, as is well known, sinking below sea-level, so that if the ocean could flow into them they would be filled to the brim. In the deepest parts of most of them water now stands, forming small seas. Others are destitute of water. Among these is the Lukchun depression in Central Asia, concerning which Gen. Tillo writes, in the "Proceedings of the Russian Geographical Society," that in places it sinks as much as 400 feet below sea-level. This sink-hole in the middle of the largest of the continents is also remarkable for its meteorological features, the yearly amplitudes of the barometer being greater than are recorded anywhere else on earth. In summer the temperature rises to 118 degrees Fahrenheit having been obtained in July, while the air is of desert dryness.

SUGAR AS A STIMULANT.

Swiss Guides and Canadian Lumbermen Aware of Its Value.

The Swiss guides fully appreciate the value of sugar as a stimulant, and always carry it in their kits, preferring lump sugar or highly sweetened chocolate. The muscular lumbermen of Canada consume an extraordinarily large amount of sugar during the season in the woods, taking it in the form of molasses. They sweeten their milkless tea with it, make cakes with it and even add it to their fried salt pork, which is the only meat they get during the time they are in the woods cutting lumber, and this is practically half the year. In the "black belt" of Alabama the staple articles of diet are also molasses, salt pork and cornmeal. These simple articles form the diet day in and day out, year about, and yet the negroes seem to thrive on them. But it is on the sugar cane plantations, perhaps, where the value of sugar as an article of diet is most apparent. A pamphlet entitled "Sugar as Food," recently issued by the Department of Agriculture, referring to this fact, says: "For months the chief food of the negro laborers on the plantations is said to be sugar cane, and they are seen to grow strong and fat as the sea-

son advances. They go through the hard labor of harvesting the crop and come out in fine condition, although they began it weak and half starved."

It should be added, however, that the entire juice of ripened cane is more complete food than sugar, containing, as it does, other food constituents besides carbohydrates.

Children have a natural craving for sweet things, and the sugar of milk, which makes up from 4 to 6 per cent. of it, forms an important part of baby's first nutriment, taking the place of starch until the child's stomach is able to assimilate it, so that a 2-year-old child drinking two quarts of milk a day consumes in this way about three ounces of sugar.

A lump of sugar contains as much nutriment as an ounce of potato and is far more easily assimilated. In times of great exertion, as are likely to occur in army life, this feature is particularly valuable. In warm countries sugar takes the place of fat and either sugar or sweet fruit, as dates, figs, etc., is eaten in large quantities in tropical climates. As a source of muscular energy sugar is rapidly becoming recognized, so that training diets are sometimes made to include large quantities of it, as, for instance, in the rowing clubs of Holland.—Philadelphia Record.

ON TO HIS CURVES.

When He Tried to Discover Her Sentiments He Struck a Snag.

He was a young man, as some young men are who are everlastingly paying their devoirs to pretty girls, and never reaching any definite business conclusion.

A man like that learns exactly what a girl thinks of him, and when he finds it is favorable, even to matrimony, he begins to hedge, and after a few painful struggles of a choked Cupid, the affair is all over, and the girl wonders whatever she was such an idiot for, while the man laughs softly to himself and seeks fresh fields and pastures new.

Really there ought to be a law against it, and if Judge Lynch would intervene now and then it would clear the atmosphere; but public sentiment isn't sufficiently educated yet, and we must wait awhile for the needed reform.

However, all girls are not the same, and the one of this chronicle was different, though the young man was like those referred to.

He had been paying assiduous court to her for six months, and it is not to be denied that she liked him. Most well-balanced girls do, and nobody can or wants to censure them for it. He wasn't quite sure where he stood in her affections, and he was anxious to know, so he proceeded in the usual fashion. Only this time the girl wasn't an idiot.

"What would you do, Fannie," he said in his pleasant off-hand way, "if a fellow should tell you he loved you?" "That would depend," she responded with a little flutter of she didn't exactly know what.

"Depend on what?" he inquired.

"Oh, on a good many things," she said, rather weakly.

"And suppose he were to ask you to marry him?" he asked next, concluding that promptness was the soul of dispatch.

"That would depend, too," she answered nervously.

"On what?" and he became very tender indeed.

"Well, you ask me to marry you and see," she said, so forcibly that he was disconcerted to the point of utter rout, and he has been kicking himself ever since, for he learned afterward that the girl was worth \$100,000 in her own right and he might have won her.—Detroit Free Press.

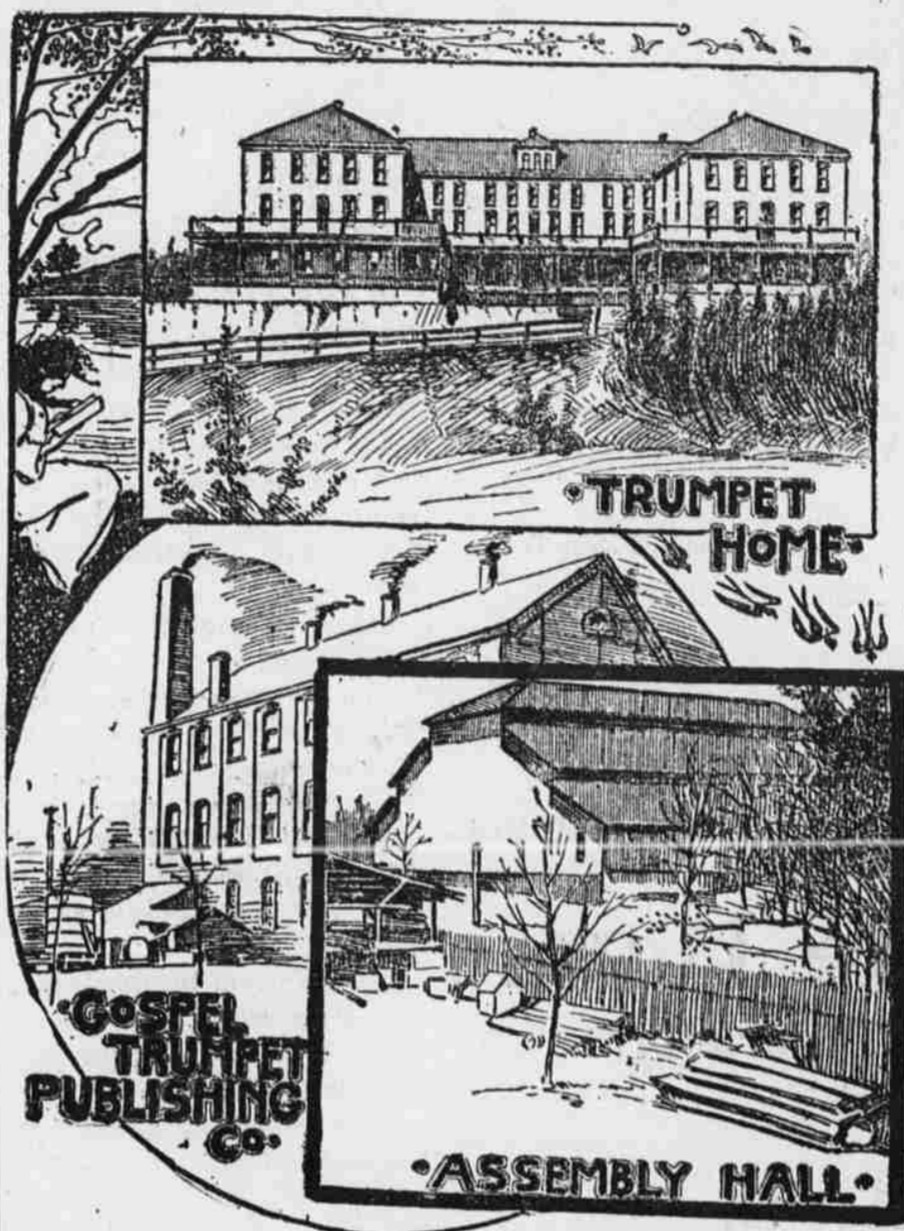
Worth Fifty Thousand Dollars.

The tail feathers of the feriwah, a rare member of the family of Paradisidae, or birds of Paradise, are the most expensive known. Indeed, its price may be called prohibitive, for the only tuft existing in England—probably in any civilized land—was procured with such difficulty that it is considered to be worth \$50,000. It now adorns the apex of the coronet worn on state occasions by the Prince of Wales. The feriwah, like most birds of its family, is shy and difficult to track, haunting the most remote regions of the East Indian islands. As these hills and forests are also the home of tigers and other fierce animals, its pursuit is attended with great danger. It is said the aforementioned tuft was secured by the cost of twelve lives. Its full beauty and luster are lost unless it is pulled from the living bird, which must, therefore, at first be only wounded or trapped. Very valuable also are those of the drepanus and moho of the Hawaiian islands. The brilliantly colored feathers of these birds were formerly exacted as a tax from the people, and employed by them to ornament their state robes. Only one of these cloaks is now in existence in Honolulu, and it is kept with the greatest care for the use of the sovereign on state occasions. Such would be the demand for this should it be for sale that it may safely be said to be worth more than \$5,000,000, single feathers having been sold for fabulous sums.

No man is a thoroughbred unless he owns two umbrellas.

THE "HOLINESS PEOPLE."

Eat and Sleep Under One Roof, Believe in Sanctification by Faith and the Gift of Divine Healing.



Moundsville, W. Va., is the headquarters of the sect called "Holiness People." They recently held a great religious feast. Many hundreds of the sect came from all parts of the world. The church originated in Michigan in 1880, and the headquarters were moved to Moundsville two years ago. They believe that God's people are coming to unity; that this is a reformation of the Christian religion, and that the true Christians of the world are being turned by God to this belief. They believe in sanctification by faith and divine healing.

The congregations, called the "Church of the Living God" or "Holiness People," are very economical. They wear no neckties or clothing of fashionable design. The men all wear white shirts and celluloid collars, with bone collar buttons, and no jewelry is worn. Everything is in communal style. They are all quartered in the Trumpet Home. At this Home the single people have rooms of their own and the families have suites. There is but one kitchen and one dining room. These people do not mingle with the outside world, and apparently are a very happy and contented set. They have a publishing house of their own, and a paper called the Gospel Trumpet. No one working on this journal gets any salary, as the motto of these people is that all persons need is "enough to eat and their clothing."

TUNNEL DISEASE.

Curious Affliction of Those Who Delve in Mines and Tunnels.

There is a disease which attacks the laborers in tunnels and mines. It is as old as Egypt, but only within this century has it been placed to a specific parasite. It is a painful and dangerous disease, often resulting in death. A monograph on the subject of this malady, called ankylostomiasis, has just appeared, and, coming as it does from Hugo F. Goldman, M. D., the official physician in the coal mines of Brenberg, near Oldenburg, Germany, it carries great weight, for it is based upon years of experience and practical treatment of this dread disease.

It attacks not only men but animals, especially the horses or mules used in the building of tunnels and the operation of mines. It is a disease caught by injection, like typhoid or cholera. It may be contracted in the air or by contact with the germs, which are really the eggs of the little worm, or ankylostoma, as it is called. This name means "hooked mouth," and refers to the six hooked teeth around the mouth of the parasite by which it clings to the interior of the human intestine. It is found not only in the duodenum, but also in the smaller intestines, where it grows and flourishes.

Male and female can be distinguished among these parasites, the females being larger and more numerous than the males. The males grow to the length of .3937 inch, and the female is on an average half as long again. They can be seen with the naked eye. This animal has neither breathing apparatus nor circulatory system, and varies in color from grayish white to brown and even blood red, according to the condition of the person in whom it is found. The female lays a large number of eggs in the human intestines, from which they spread the disease infinitely under proper conditions. The parasite and the egg develop best in a temperature between 65 and 85 degrees Fahrenheit. The air and surrounding medium should be moist. It is on account of the moisture and heat to be found in mines and tunnels that this parasite develops so perfectly among the toilers in these places. Darkness is also necessary, sunlight killing these animalcules almost instantly.

Ankylostomiasis originated in the Orient. It has been long established in Egypt, but has been mistakenly called Egyptian chlorosis, or anemia, and was treated as mere poverty of the blood in red corpuscles. It passed over from Egypt to Italy, where it was not really understood until Dubini found the parasite in 1838.

When the St. Gothard tunnel was built in the '70s, the disease spread throughout central Europe, especially in Switzerland. The further spreading of the ankylostoma to the mines of Europe was quick to follow. When the men were first attacked in the St. Gothard tunnel it was thought that a new disease, the "tunnel disease," had been found, but it was nothing other than the ankylostoma, as was proved by Perronico, when he found no less than 1,500 of these parasites in the duodenum of a man who had died of "tunnel disease."

The mode of infection is very apparent. The men while at work often carry their hands to their mouths, or eat their food in the tunnels or mines, and in this way the parasite or its eggs enter through the mouth, pass on into the system and find a permanent home in the intestines, to the walls of which they cling with all six teeth, feeding on the blood of the unfortunate person attacked.

Not Law but Gospel.

Clergymen of the past often had traits of individuality which are perhaps not so common at the present day. Archbishop Sumner was once holding a confirmation in an English parish church, when he observed that a number of people were standing in the aisles, although several pews were empty. He stopped the service, and asked the reason.

"The pews are private property," answered a man, "and they're shut up."

"There can be no such thing," said the bishop, authoritatively. "Let the pews be opened."

"We can't open 'em!" shouted some one. "There're locked."

"Is there a locksmith here?"

"Yes, my lord."

"Very well; let him remove the locks. A hymn shall be sung meanwhile."

So the locks were removed, the audience seated itself, and the confirmation went on.—Youth's companion.

"Bobs" Little Admirer.

Of all the communications with which Lord Roberts has been deluged since he went to South Africa the briefest and best, he says, is one he received from three Dublin admirers. It reads: "Dear Lord Bobs—We are Irish, and we think you are the nicest man there ever was, except daddy. Aunt Nell likes you dreadfully; she has a picture of you, and she kisses it and says 'bless him!'—Your little admirers, Frances Muriel, Molly, and Elleen."

After a woman has been married two years, she should give up trying to get her husband to say voluntarily that he is fond of her.

MAJ. GEN. WESLEY MERRITT.

Soldier Whose Honorable Service with Uncle Sam Is Ended.

Maj. Gen. Wesley Merritt has been retired from active service owing to his having reached the age limit. He was born in New York in 1836 and was graduated from West Point in 1860. He entered the regular service and had attained to the rank of colonel at the outbreak of the civil war. His career in the war was marked by several acts of gallantry, in consequence of which he was made a brigadier general of volunteers in June, 1863, and was afterward appointed to succeed Gen. Buford in command of the First Division of Cavalry. Later he was advanced to lieutenant colonel in the regular army. He was made a brigadier general in April, 1887, and a major general three years ago, at which time he was stationed at Governor's Island.



MAJ. GEN. WESLEY MERRITT.

Soon after the news of Dewey's victory at Manila Gen. Merritt was appointed military governor of the Philippine Islands, and assigned to the command of the Eighth Army Corps, with headquarters at San Francisco. Gen. Merritt sailed for the Philippines with the third expedition and arrived in the islands late in July, 1898. Later Gen. Merritt relinquished the military command to Gen. Otis and assumed the duties of military governor.

As he had been appointed a member of the Peace Commission at Paris, the general left Manila on Aug. 30 on the steamship China. After the conference in Paris he went to London and married Miss Laura Williams, of Chicago, on Oct. 24, 1898. The general and his wife returned to New York on Dec. 17, 1898, and from that time until his departure for Europe he was stationed at Governor's Island.

Kate Masterson's First Poem.

Kate Masterson, the poet and humorist, thus describes the beginning of her literary career:

"I was at school in Brooklyn when I first sent a poem to Judge, signing it Kittle K. It was accepted and published with an illustration, and my cup of joy was brimming. When I got a check for \$2 I effervesced. I then sent some verses to Puck, which was then edited by H. C. Bunner. They were also signed Kittle K., but were written from a masculine point of view, and as I wrote a very gentlemanly hand Bunner evidently came to the conclusion that I was a boy. He sent me some very funny letters, and I replied, keeping up the idea that I was a very fresh, slangy boy. He accepted the verses, 'She Stood on the Stair,' and they were published in a Christmas number with a picture. As this was only the second poem I had sold in my life, you can imagine how wildly anxious I was to have it appear. I bothered Bunner with inquiries, for, of course, that was the only poem on earth to me just then. I recollect finally writing him, 'Do you think my poem will be published during my lifetime?'"

"He wrote me: 'My dear boy, I cannot say if your poem will be published during your lifetime, as I do not know when you are going to die.'—Philadelphia Post.

Family Lived in Hollow Tree.

A family named Hopgood, consisting of father, mother and two daughters, has been discovered near Richmond living in a hollow oak tree. The tree was not large enough to accommodate the whole family, and they seemed to have been taking turns, some sleeping under the tree and others inside its decayed trunk. They made their living by foraging and begging about the country. The county authorities have taken them in hand.—Richmond (Va.) Cor. New York Sun.

Temptation Resisted.

St. Peter—Editor, eh? What good things have you ever done? New Arrival—I once took the blame for one of my own mistakes, instead of throwing it on to the intelligent compositor.

St. Peter—Go up head.—New York Weekly.

It is easier to open a can of corn than to prepare a dozen ears of fresh corn. For this reason, some women argue that the canned corn is "better for you."

It is a pretty safe rule to go by that when all the papers don't refer to a man as prominent, that he is.