

MARCONI, INVENTOR OF WIRELESS TELEGRAPHY.



Professor Guglielmo Marconi, the inventor of wireless telegraphy, who will visit America next fall, is only twenty-five years old, but his work has already won him fame and fortune. He began experiments in Italy, and the Italian Government gladly paid him a high price for the use of his invention on warships. Then he removed to England. He is admittedly the foremost inventor in his line, and has been the most successful of the numerous scientific men who are working upon wireless telegraphy. His recent experiments in England, in which he sent a message without wires for a distance of thirty miles, were perfectly successful. Marconi proposed to send a message from the French to the English coast, but the French Government at first refused. Learning, however, that the German Emperor was investigating the matter, the French Government agreed to permit Marconi to build his station on its soil. He says the system could be operated across the Atlantic.

FUNSTON'S STIRRING CAREER

Has Sought Adventure in Many Places and Has Never Shirked Danger.

A red-headed man with a low, sweet voice, is making the Twentieth Kansas the most famous American regiment now fighting the Filipinos. He only weighs 115 pounds, but—he can fight. More than that, he will fight. The story of Brigadier-General Fred Funston, late Colonel of the Twentieth Kansas, reads more like a tale from the exploits of the "White Company," a romance of knightly times, than a matter-of-fact relation of what a nineteenth century jayhawker has done.

Funston's character as a soldier and combatant is summed up in the terse expression of one of his own men—"bottled vitriol."

The Twentieth Kansas is not a regiment composed of handsome men. As a beauty show it would go into bankruptcy. So far as possible every man in it was selected for his ability to endure and fight and not with a view to his good looks. The selection of the men was largely left to Funston, and that his judgment was exceptionally good is proved by the terrible deeds his men are performing on the island of Luzon.

The men are Kansas farmers, of the horny-handed type, bullwhackers from the plains, blacksmiths, city laborers, descendants not only of the old Free Soil settlers, but of the early Confederate rangers; men who can shoot, swim, live on air, and sing a hymn.

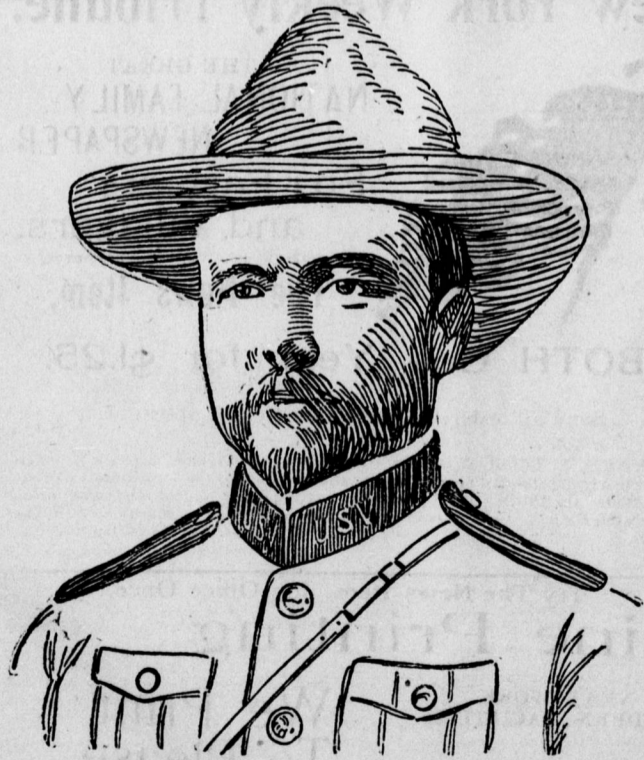
thigh crushed by a horse plunging during battle, his system racked by Cuban fever. He was captured by the Spaniards in Cuba and sentenced to death, but escaped. While on an expedition to Alaska he was pitched into the Yukon River and narrowly escaped drowning. Within the circumference of the arctic circle he was nearly frozen to death, and then fought pneumonia



MRS. EDNA BLANKARD FUNSTON.

to the very door of death. Of practically no physique, but five feet four inches in height, his endurance and escape make him one of the most remarkable personages connected with the American army.

Love-making and fighting are all one to the brave General Funston. He wooed and won his pretty wife with the same vim he showed in battle. He met Miss Edna Blankard, of Oakland, Cal., a music teacher, while in camp



BRIGADIER-GENERAL FREDERICK FUNSTON.

Funston fought in Cuba with the Cuban army until the destruction of the Maine brought him back to his own country. He is but thirty-three years old, yet he has engaged in twenty-three battles in Cuba and six or more in Luzon. His left arm has been mutilated for life by a shell, his lungs pierced by a Spanish bullet, he

in San Francisco, and married her in three weeks' time. She is with him in the Philippines, having been smuggled on board a transport by her husband in the disguise of a soldier's boy.

To suffer is the lot of all those who press forward, ahead of the world.

FOR FARM AND GARDEN.

Aim in Cultivating Soil.

A farmer's aim in handling his soil to the best advantage ought to be with the idea of maintaining proper moisture, and to cultivate sufficiently to prevent such free circulation of air as will dry out the soil, yet sufficient air should be allowed to enter the soil to permit the growth of roots. When he gets this happy medium he has struck it.

Out Door Nests.

Of course in winter nests are made in the henhouse. Hens are not apt to be broody in cold weather, and the short time the hen is laying her daily egg does not cause vermin to breed in it. But so soon as warm days tempt the fowls out of doors they should be encouraged to nest outside. About this time too fowls will become broody, and if allowed to nest in the henhouse they will inevitably fill it with vermin. If the outdoor nest is made on the ground the moisture arising from the soil will keep the shell in good condition for the chick when hatched to pick its way through. Most hens if allowed any range will steal their nests, and generally bring off a larger batch of chicks than those for which the poultry keeper has carefully set the eggs.

Best Methods With Potatoes.

My plan for the past six years has been to plant on run-out sward land that is naturally well drained. Plow deeply, work the ground well with a disk harrow and follow with a spring tooth, then furrow out about five or six inches deep and scatter in a good handful of potato fertilizer. Kick on some dirt and drop on one piece of seed and cover lightly. Hills may be about eighteen or twenty inches apart. Begin to stir the whole surface with a light cultivator or a weeder soon as the potatoes begin to break ground. Do this as often as every week, letting the cultivator throw in a little soil each time, then go through with hand hoe, destroying all weeds and filling in a little dirt, but making no high, round hill.

I select best potatoes for seed, cut into pieces of two or three good eyes. I use no barnyard dressing whatever, as it has a tendency to make potatoes scabby and to rot. Plant as early as practicable, so that they may make their growth early. Dig for winter use not until into September. By the above method I have nothing but smooth, sound potatoes and also a good yield.—G. B. Pierce in New England Homestead.

Reducing a Tree's Head.

One of the results to be gained by reducing the head of a tree or cutting back the limbs when it is transplanted is that it will afford less surface to catch the wind, and the tree will not be blown about or bent over before the roots get well established in the soil. In a large proportion of apple orchards, either young or old, one can tell at a glance the direction from which comes the most prevalent high winds, as all the trees lean away from it. It is almost impossible to entirely prevent this where there is no hill or wood to act as a windbreak to protect them, but by planting them leaning a little toward the windy point, and keeping the tops well pruned, the trouble can be lessened so that it will not amount to a deformity in the orchard.

When the new growth starts the branches will be thicker, and by a little care in pruning, or, better still, in rubbing off buds as they start, the shape of the tree can be made almost what it is desired to be, although it is not well to try to force it far out of its most natural form. An upright grower should still be upright, and a low, spreading tree should not be made to take the upright form. But they can be controlled so as not to be exaggerated specimens of their own type.

Two things should be always borne in mind when pruning or shaping the top of a tree, the convenience of spraying and of picking the fruit. Spraying properly at the proper times has become or will soon become an absolute necessity in our apple orchards, as those who do not practice it will find their fruit so much inferior to that offered by those who do spray as to almost unmerchantable in the years of plenty. If it increases the production of good fruit so as to reduce prices, it may be more to the benefit of the consumer than of the producer, but with better fruit and more care in assorting, handling and packing, the European demand will increase more rapidly than our average production increases for many years to come, while lower prices would stimulate and increase the demand in the home market.—The Cultivator.

Cultivating Sweet Peas.

It would be difficult to name a more popular annual than the sweet pea. Its dainty form, rich and delicate coloring, delicious fragrance and great endurance, are qualities, a single one of which should insure for this flower our fostering love. As a source of supply for cut flowers it is unsurpassed, its product being equally appropriate for the dining room, pulpit or cemetery; and a daily picking but increases the supply of blossoms. In fact, one must keep them picked if she would have the blooming season a protracted one, for the forming of even a few seed pods soon destroys the vitality of the plant; and it is better, in the end, to buy seed from the florist each year, than to injure the crop of flowers by allowing seed pods to form.

Sweet peas to attain their highest excellence, must be planted as soon as the ground can be worked in spring.

To wait until the soil is warm, is not only unnecessary, but unwise, for it invites a delay that will court injury during the summer drouth. Some advocate fall planting, and this is advisable where the ground does not leave badly. Seeds should be sown from four to eight inches deep, according to the heavy or light nature of the soil. The support can be much more firmly secured if supplied at the time of planting, before the ground becomes hard. Wire netting forms the best support, though even brush does very well.

Among the bewildering varieties now offered one may become confused, yet, after all, she cannot go far astray, for so many of them are good. If the purse is contracted, the mixed packet will be found the most economical. If some of the choice collections are chosen there is opportunity for care in securing a harmonious blending of colors. Thus at one end of the screen may be grouped, the reds, pinks, etc., gradually shading to pure white; while on the other side the various shades of lavender, blue and purple may be combined. This harmony in colors should also be borne in mind in the arrangement of cut flowers, several stems of each color being grouped together, being much more pleasing than a promiscuous mixing of individual florets.—The Epitoniast.

Raising a Calf Economically.

I arrange to have as many of my calves come in March as possible, though a few come later and some in the fall. The first day or two they are left with the cow. After that day they are put in a large, well ventilated box stall, with plenty of light and dry bedding. They are not allowed out of doors until the weather gets pretty warm, and then only in the daytime, until accustomed to the change. Usually the calves suckle until five or ten days old, sometimes longer, preferring if practicable to teach several to drink at a time, as it is very little more work than to teach one. As a rule it is best to let the calf go without one meal before trying to feed, as by so doing it is apt to give up a good many foolish notions.

A mistake is often made in feeding too much at the start and the calf becomes a sipper instead of a drinker. Another mistake is in substituting gruel porridge, hay tea or some other sloppy mixture for new milk. It is sometimes possible to keep life in a calf when fed on such a diet, but very often it dies. My experience is, that it is best to feed the grain ration alone and the drink alone; let the calf do the mixing. I induce them to eat a little hay and grain as soon as they manifest a desire to do so.

If the calf has horns, it is a good time to kill them as soon as it gets to drinking well. If done before, its head being sore will interfere with drinking. I generally use caustic potash. It is cheap and if thoroughly applied is good. The trouble is it is not usually applied properly. Horn forceps may be used, or the horns allowed to grow until the calf is ten or twelve months old, and then removed by sawing. Either way is all right and will produce a smooth head if the man has the tools and the skill to use them.

As long as new milk is fed care should be taken that each calf has the same cow's milk every time. When a substitute for whole milk is used the change is made very gradually at first. Just what is used in place of whole milk depends entirely on circumstances. With me it is usually skimmed or separated milk, though sometimes it is sweet whey, buttermilk or even water. The latter is used to dilute the buttermilk or as a filler when only a small quantity of new milk is fed. My aim is to feed bulky rather than concentrated foods. This practice tends to increase the digestive capacity. I begin feeding separated milk by mixing a small quantity with new milk, increasing the former as the amount of the new milk is diminished, until in two or three weeks no new milk is fed, but grain enough is eaten to take its place. The skimmed milk is fed cold, but not ice cold. If warmed at all it is done by placing over hot water or by steam, never by placing directly on the stove. One feed of overheated milk will cause an endless amount of trouble. How long skimmed milk should be fed depends largely on its cost. I pay ten cents per 100 pounds at the creamery. At that price it is a cheap feed all summer. A liberal amount of clover or mixed hay is fed, together with a grain ration consisting of oats or some feed rich in protein, until the calf is turned out to pasture, a yearling.—C. P. Haskins in Orange Judd Farmer.

Poultry Notes.

Close, damp quarters will breed roup.

Keep houses open as much as possible to insure dryness.

Fresh air, exercise, green food and cut fresh bone or meat make fertile eggs.

Feed less corn, barley and wheat and more oats as the weather gets warmer.

Give your fowls the best of care in clean, pure water, wholesome food and dry quarters.

Be on the lookout for sudden changes in the weather, and see that stock is properly protected.

Be sure that there is plenty of dry dust in the dust bath. A little tobacco dust or slaked lime makes a good addition to the dust bath, and makes it more effective.

It does not pay to spend much time fussing and doctoring small chicks. You may keep them alive a week or so, but they usually die. Better kill them at the start of the sickness, and give the time and labor saved to doing better by the well chicks.

HOME-LIFE OF AGUINALDO.

His Mother, Sister and Wife Are Caring For the Insurgent Wounded.

The character and life of Felipe Aguinaldo, the Filipino leader and general of the insurgents who have rebelled against the authority of the United States, are somewhat familiar to the people of this country. Aguinaldo, however, has a wife, mother and sister, to whom very little attention has been directed.



MOTHER OF AGUINALDO, THE FILIPINO LEADER.

The insurgent leader is now about thirty years of age. He is a mestizo—that is, of mixed Spanish and native blood. He is of medium height and slender in appearance, these physical characteristics being common to the Filipino. Aguinaldo's father was a planter in the province of Cavite. His mother has Chinese blood coursing through her veins, being the daughter of a Chinaman and a native woman. Aguinaldo's grandfather, on his father's side, was a Spaniard, who married a native woman, and hence the racial features of Aguinaldo are accounted for.

Aguinaldo's mother has had little to do with the career of her son, for he was sent away at an early age. His mother and sister, however, have lived upon their small plantation, which produces enough for them to gain their livelihood. Miss Aguinaldo y Jany, the sister, is small in stature, possesses an olive complexion, and is quite active physically. She helps her mother, and though she has often been wooed, has not yet been won by any of her admirers. She is domestic in her tastes, has no vanity, except that common to her sex, and is true to her friends. She is a charming Filipino damsel, and a good type of the mestizos of the islands.

Of Aguinaldo's wife very little is known. She has been doing good work among the soldiers of her husband's army in attending to the sick. She has organized a hospital corps, somewhat modelled after our Red Cross Society, and in many ways has



MISS AGUINALDO Y JANY. (Sister of the Filipino leader.)

made herself useful to the army. There is a pretty story told of Aguinaldo's wooing, but how much truth there is in it it is impossible to tell. During the first rebellion against Spain, when the Spanish soldiers were committing almost every outrage conceivable on the Filipinos, a troop of soldiers was sent to arrest a planter who was supposed to be aiding the rebels. Somehow Aguinaldo heard of the intended capture, and, at a great risk to himself, went to the planter's house, informed him of his danger, and took him and his daughter to a place of safety. While in retreat Aguinaldo's kindness to them, in many ways saving them from capture, softened the heart of the planter's fair daughter, and Aguinaldo made love to her after the fashion of the Filipino youth, which does not differ materially from the fashion of the wide world over. In the course of time they were married.

"This," said Tuff Knutt, as he began his meal on the back porch with the quarter-section of pie the good woman of the house had handed out, "is the enterin' wedge."—Chicago Tribune.

Half the World is Still Heathen.

The Ratio Increasing Yearly.

Now that the United States has acquired several alien peoples in the East and in the West, and other civilized nations are reaching for their respective slices of China, that big heathen nation, the efforts of Christian missionaries are redoubled to convert the alien peoples. Protestants are turning their efforts, not only toward China, but toward Cuba, Porto Rico and the Philippines, while the work of the Roman Catholics is directed to holding what has been gained in these three localities and making new converts in China.

There is plenty of room and field for their work. The latest figures, prepared this year to show what has been done up to this end of the century, show that more than half of the world is still heathen or pagan. According to these figures the Protestants constitute only 9 4-10 per cent. of the people in the world; the Roman Catholics, 14 8-10 per cent.; the Greek, Armenian and Abyssinian churches, 7 per cent., and the Jews, 4-10 of 1 per cent., making a total

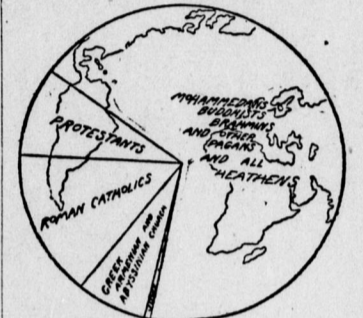


CHART SHOWING THE DIVISION OF THE WORLD BETWEEN RELIGIOUS AND NON-RELIGIOUS BODIES.

percentage of 31 6-10. And this is without counting those who live in Christian countries but do not believe in any creed or go to any church.

On the other hand, the Mahometans constitute 13 7-10 per cent. of the world's population, the Buddhists and Brahmans 46 2-10, and all others, pagans and heathens, 8 6-10 per cent. Leaving the Mahometans out of the question, the percentage of pagans and heathens is 54 8-10.

The figures on which these percentages are based assume that the population of the world is 1,452,000,000, made up of 137,000,000 Protestants, 216,000,000 Roman Catholics, 95,000,000 Greeks, Armenians and Abyssinians, 672,000,000 Buddhists and Brahmans, 200,000,000 Mahometans, 7,000,000 Jews and 125,000,000 of other creeds. The total number of Christians is 448,000,000, and the total number of others is 1,004,000,000.

So, after a century of the most active and concerted missionary effort since the beginning of the Christian era, there still are upward of 800,000,000 persons in the world who have not embraced the Gospel.

More striking than this even is the fact that heathenism is increasing as compared with Christianity. By natural increase of birth there are 250,000,000 more heathens in the world to-day than there were in the beginning of this century. And they continue to increase by 3,500,000 a year. This is far beyond the increase, from year to year, in the number of converts to Christianity in heathen lands.

The United States has more Catholics than adherents of any other religious sect. Next come the Methodists, and after them the Baptists. The total number of church communicants, according to the Baptist Year Book, is 28,443,114, which is about a third of the whole population. The greatest strength of the Catholics is in New England and New York.

The Methodists and the Baptists are widely dispersed, their heaviest strength being in the Southern States. The Methodists have 5,898,094 adherents, and the Baptists 4,479,261.

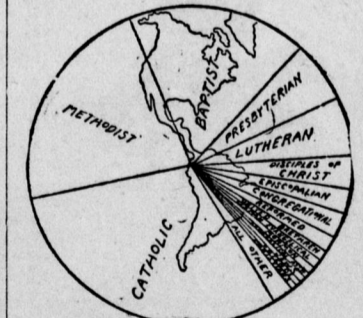


CHART SHOWING RELIGIOUS MEMBERSHIP OF THE LEADING RELIGIOUS SECTS IN THE UNITED STATES.

The Presbyterians are found in greatest strength in New Jersey, Pennsylvania and Ohio, and thence westward, and their church membership is 1,552,401. The Lutherans, 1,520,552, are mainly in the Northern States of the Mississippi Valley, where also the Christians are, especially. The strength of the Congregationalists (625,864) is in New England. In Western Connecticut is the heaviest strength of the Episcopalians, who altogether number 688,347. The remainder belong to scattered creeds and sects.

Iron furnaces with a capacity of 4,000,000 tons a year are idle because they are out of date.