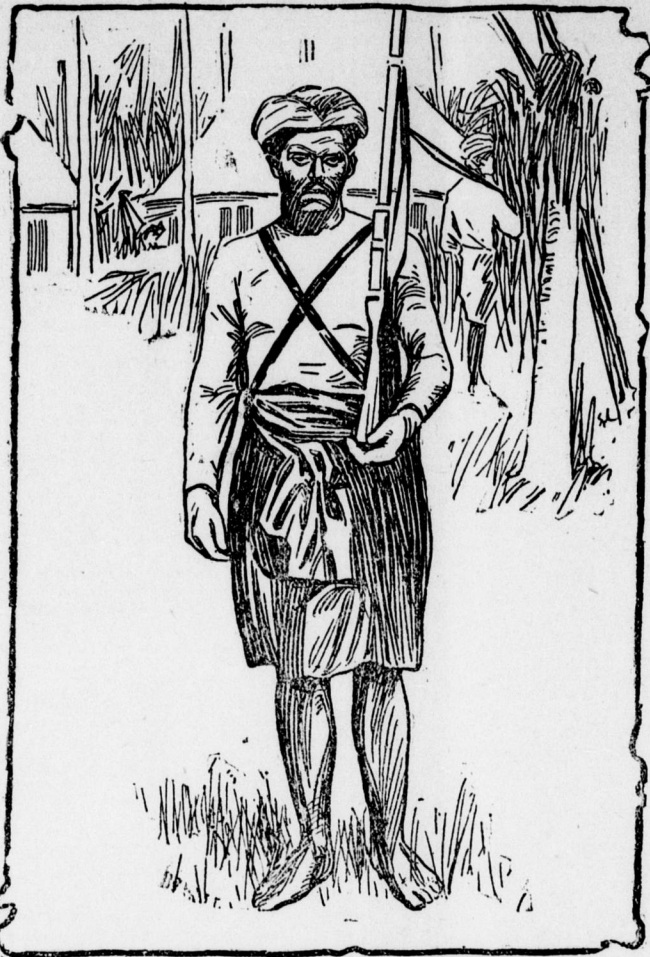


A NEW TYPE OF AMERICAN SOLDIER.



ONE OF UNCLE SAM'S SAMOAN SOLDIERS.

The United States has a model little army in the Samoan Islands, according to letters officers of the United States cruiser Philadelphia sent from New Zealand. They say the Tutuila Naval Guard is one of the best drilled bodies of troops in the world. The natives look upon the soldier business with great enthusiasm when enlisted under the American flag, and they have been drilled until they show great perfection in military movement. The Samoan troops wear red turbans, white navy undershirts and blue dungaree "lava-lavas" or breech-cloths, with two red straps around the hem. The legs and feet are bare.

BLOSSOMS THAT EMIT LIGHT.

When the Pollen Bursts Electricity is Generated With Faint Flashes.

To a woman belongs the honor of having first discovered flowers that emit light. This woman was the daughter of Linnaeus, the celebrated Swedish naturalist. One evening, when the aged man and his daughter were walking in their garden, she called his attention to some nasturtiums glowing with a faint phosphorescent light. They removed these to a perfectly dark room and there viewed the ghostly illuminated flowers for hours, trying to solve the mystery. Since that time, says the New York Herald, a number of different flowers have been found to give forth a light, among them being the corolla of the common sunflower; also a species of tagetes, called by the French botanists the "rose d'Inde," and the large and beautiful compound flower called in this country the dahlia.

"Luminous nasturtiums," writes Professor A. Frederick Collins, "have been frequently observed in Golden Gate Park, San Francisco. I observed one evening a number of persons bending over an iron pot full of nasturtiums. Curious to know what the attraction was I fell into line until it became my turn to inspect the flowers at closer range.

"I was surprised to see a flash of light dart repeatedly from the yellow petals. The next day I photographed it.

"A strange fact regarding the phosphorescent light emitted by certain



LUMINOUS NASTURTIUMS IN GOLDEN GATE PARK.

flowers, it has been observed, is that those in which the yellow and orange predominate exhibit the greatest amount of light. Professor Haggren, the naturalist, pronounced the light of electrical origin, declaring that when the pollen bursts electricity is produced, and light follows."

Swimming Pheasants.
The pheasant, everybody knows, is a non-aquatic bird; therefore Professor Lloyd Morgan's observations that newly hatched birds of the age of thirty hours swim easily, show apt leg movements and exhibit few signs of distress, is of singular interest. Is this swimming habit a throw-back or reversion to an antecedent state in the history of this land-giving species, or is it to be regarded as an example of a direct and sudden adaptation to a new environment?—London Chronicle.

Armor Presented to the King.

The sixteenth century suit of armor presented to the King on June 13 by a number of gentlemen, headed by the Duke of Marlborough, was worn at

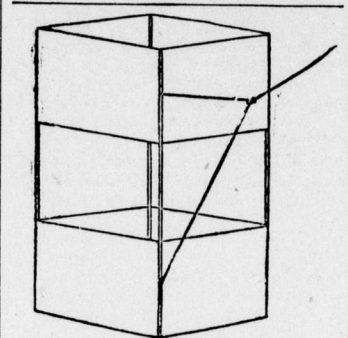


the coronation of King George I, by the champion, Dymoke, whose fee it became after the ceremony. The suit was made for Sir Christopher Hatton, and is the work of the armorer, Jacobi. The breastplate, of markedly peaced form, is of great size, with two laminated plates at the bottom, and on the left hand side five staples for the attachment of the lance rest. The decoration of the breastplate is of great interest, as at the top of the centre band is the crowned reverse cipher, represented by a capital E and beside it the same letter reversed, a symbol which was used, no doubt, in compliment to Queen Elizabeth; above the monogram is a strapwork panel, containing the figure of Mercury; at the base of the breastplate is an oblong cartouche, with the date 1585. The same theme of ornament is repeated on the back plate. The legs are small in comparison with the rest of the suit. It was purchased by the presentation committee from a New Bond street art dealer.

A Hoodoo Bird
Boone County, Mo., has a sort of hoodoo bird known as "the belled buzzard" which has returned to the neighborhood at intervals of a few years since before the days of the oldest inhabitant. It carries a bell attached to an iron collar. The bird has just come back very gray and sluggish. It is believed to be at least a century old.
The sweets of family life are not to be found in family jars.

Modern Kite Flying.
A Height of Three Miles Reached at Blue Hill Observatory.

KITE flying is no longer a boy's amusement merely. Mature men enjoy the sport greatly, though the opportunities for it may not be afforded except during their annual vacations. Kites are used a great deal nowadays for scientific purposes, too. The device which Franklin found so convenient for investigating the elec-



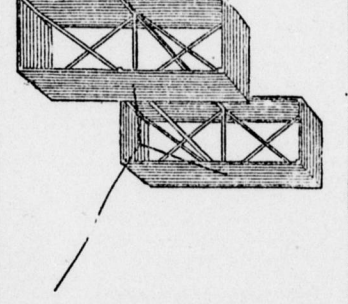
BRIDLE OF DIAMOND KITE.

tricity of a storm cloud has also been employed for carrying up self-registering thermometers to great altitudes. The United States Weather Bureau, by simultaneous observation over a wide area, has learned much about atmospheric conditions at an elevation of nearly ten thousand feet. At the private observatory of A. Lawrence Rotch, near Boston, kites have been sent up twelve thousand and fifteen thousand feet. Photographs have in the same way been obtained far above the earth's surface, and a number of daring and ingenious army officers have sought to sustain themselves in the air at a sufficient elevation to reconnoitre. These last mentioned ventures, though rather promising, have not been attended with any marked success. Still, the vast majority of those who fly kites do so for recreation and not for purposes of research.

At the shops one can find a great variety of kites. Some are shaped like yachts, and others like eagles. These are rather expensive, however. The more common forms, both in the toy trade and among scientists, are the Eddy and box kites. Both of these are tailless, which fact simplifies the work of flying them, though calling for a little greater precision in construction.

It is possible for a person endowed with a fair amount of mechanical skill to make his own kites. Inasmuch as it is common to fly several at once, tandem, and as there is more or less loss from breakage sooner or later, one naturally wishes to have anywhere from two to a dozen, and if that number were purchased ready made the cost would not be trifling.

For the Eddy kite two sticks are required, one upright and the other crossing it at right angles, one-fifth of the way from the top. The propor-

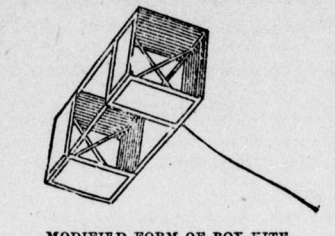


THE HARGRAVE CELLULOSE KITE.

tion is eighteen per cent. to be exact. Straight grain white pine or spruce is the best wood, and for a kite three or four feet high the sticks should be half an inch wide, and a quarter of an inch thick. At the intersection the sticks should be fastened together with brads or twine. The ends being suitably notched, twine or fine wire should be tightly stretched around them.

Before this stage of construction is reached certain other measures must be taken, in order to give the kite a slightly bulging front. The cross stick should be bent backward like an archer's bow, and the curvature preserved by a string from end to end.

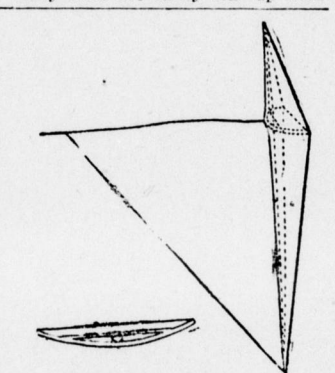
Thin manila paper, silk or light muslin will make a good covering. This should fit a little loosely, so that on each side of the upright stick the



MODIFIED FORM OF BOX KITE.

wind will make shallow pockets. A bridle for flying is made by tying one string to the bottom of the upright stick and another to the intersection of the two, their lengths being such that the upper end will go out at right angles from the face of the kite. The bridle terminates in a loop, and the kite string is tied to the latter.

Hargrave, an Australian, is credited with originating the cellulose or box kite. But the experts of the United States Weather Bureau have tried a number of modifications of the design in matters of detail. So have Mr. Clayton, of the Blue Hill Observatory; Lieutenant Hugh Douglas Wise, U. S. A., and others. Some men have the tops and bottoms of the cells horizontal. Others turn them up cornerwise. Again, one experimenter imparted a diamond shape to the big cell. For the Potter, or diamond, kite the United States Weather Bureau gives these dimensions: Four corner sticks, forty-four inches long, five-eighth inch wide and quarter inch thick. Upright braces, or struts, fifteen inches, and horizontal braces thirty-eight inches long. The cells are of cloth, hemmed on both edges, thirteen inches wide and eighty-one inches long. Two of these are needed, of course. Eddy kites are easily sent up with-



THE EDDY KITE.

out assistance. To raise a box kite it is wise to let out 150 or 200 feet of string; have this lie exactly in line with the wind, and get some one to hold the kite lightly until the wind catches it and begins to lift. At the instant it is released fifteen or twenty feet of cord should be pulled in. That performance has the same effect on the kite as running. If the kite shows a disposition to dive, let out a little twine quickly.

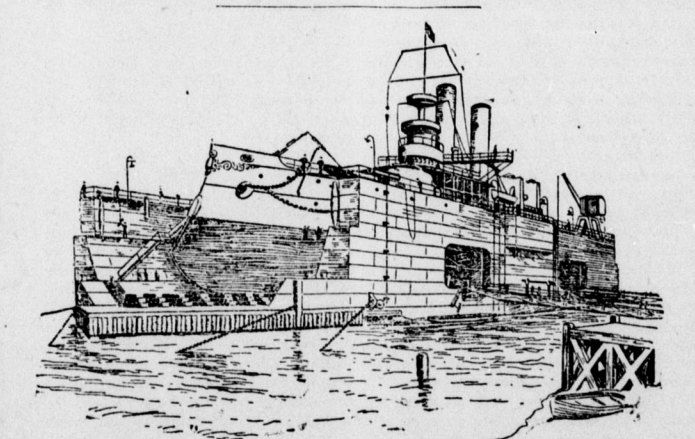
When a flag is to be sent aloft by means of kites, one edge should be tacked to a stick sufficiently heavy to hang vertically, and the upper end of the stick tied to the kite string when the kite or team has gone up only a short distance.—New York Tribune.

The Largest Ship Afloat.

The new White Star liner Celtic heads her class of passenger steamers in size and magnificence. Her cabin capacity is 2850 passengers, yet to give an idea of the roominess and comfort of the boat, it is estimated that 40,000 men could stand on one of her spacious decks. She is 700 feet long, has a beam of seventy-five feet and a depth of forty-nine feet. Although not so long as the Oceanic by five feet, she has seven feet more beam, and measures 3000 tons more. Her tonnage is 20,000 gross, and her displacement, at load draught, is 28,220 tons. With engines of the quadruple expansion type, twin screws, great depth of beam and huge keels, she ought to be the steadiest craft afloat. The staterooms are large and comfortable; and suites, including living room, chambers and bathrooms, are furnished for families. The steerage is said to be as luxurious as the first-class accommodations of twenty years ago.

Very few of us would be willing to take our own advice.

THE NEW FLOATING STEEL DRYDOCK OF THE UNITED STATES NAVY.



LAUNCHED AT SPARROW'S POINT, MD., AUGUST 15—AS IT WILL LOOK HOLDING ONE OF THE BIG BATTLESHIPS. (This is the largest dock in the world, and a valuable addition to our navy. It is 325 feet long, with a lifting power of 20,000 tons and cost \$810,000. It will be stationed at Algiers, near New Orleans.)

DR. TALMAGES SERMON
SUNDAY'S DISCOURSE BY THE NOTED DIVINE.

Subject: The Methods Needed in the Modern Church to Preach the Gospel Effectively—Ministerial Laziness Denounced—The Church Needs No Apologies.

(Copyright, 1901.)
WASHINGTON, D. C.—Most encouraging to all Christian workers is this discourse of Dr. Talmage while denying the accuracy of statistics which represent Sunday audiences as diminishing; text, Hebrews x. 25, "Nor forsaking the assembling of ourselves together."

Startling statements have been made in many of the pulpits and in some religious newspapers. It is heard over and over again that church attendance in America is in decadence. I deny the statement by presenting some hard facts. No one will dispute the fact that there are more churches in America than ever before, one denomination averaging two new churches every day of the year. The law of demand and supply is inexorable in the kingdom of God as it is in the world. More churches supplied means more church privileges demanded. More banks, more bankers. More factories, more manufacturers. More ships, more importers. More churches, more attendants.

In all our cities within a few years churches have been built large enough to swallow up two or three of the old-time churches. I cannot understand with what kind of arithmetic and slate pencil a man calculates when he comes to the conclusion that church attendance in America is in decadence. Take the aggregate of the number of people who enter the house of God now and compare it with the aggregate of the people who entered the house of God twenty-five years ago, and the present attendance is four to one. The facts are most exhilarating instead of being depressing. That man who presents the opposite statistics must have been most unfortunate in his church acquaintance.

You are not to argue adversely because here and there a church is depleted. Churches have their day. Sometimes merchandise will entirely occupy a neighborhood and crowd out the churches and families ordinarily attendant upon them; sometimes strife. But there are no facts to overthrow the statement that I have made in regard to the increasing attendance upon the house of God. Now, I am ready to admit, as every intelligent man will admit, that there are churches which have been depleted, and it is my aim that a sermon be preached for the benefit of young men who are just entering the gospel ministry and for the warning of prosperous churches as to what are the causes of decline in any case. If merchandise crowd out a church, that cannot be helped, but under all other circumstances decadence in church attendance is the fault either of the church or of the pastor.

Churches are often cleared of their audiences by the attempt to transplant the modes and methods of fifty years ago are no more appropriate for to-day than the modes and methods of to-day will be appropriate for fifty years hence. Dr. Kirk, Dr. McElroy, Dr. Mason, Dr. De Witt, Dr. Vermilyea and hundreds of other men just as good as they were never lacked audiences, because they were abreast of the time in which they lived. People will not be interested in what we say unless we understand the spirit of the age in which we live. All the wagon wheel statistics are given by those who are trying in our time to work with the worn-out machinery of the past times. Such men might just as well throw the furnaces out of our church basements and substitute the foot stoves which our grandmothers used to carry with them to meeting, and throw out our organs and our cornets and take the old-fashioned tuning fork, striking it on the knee and then lifting it to the ear to catch the pitch of the hymn which we sing. We have modern platforms and modern pulpits and substitute the wingless pulpit upon which the minister used to climb to the dizzy height of Mont Blanc solitariness, and then go in out of sight and shut the door after him.

The trouble begins away back in the theological seminaries. It is a shame that larger provision is not made for ministers of religion, for the sick and the aged and the infirm who have worn themselves out in the service of God. We have wagon wheels and soldiers' asylums for men who fought on land and sea for our country when these men have become aged or crippled, and it is a shame that larger provision is not made for the good soldiers of Jesus Christ, who have worn themselves out in battling for the Lord. But lack of provision in that respect makes a tendency to turn our theological seminaries into hospitals for sick and aged and infirm ministers.

When a man begins to go down they give him the title of D. D. by way of resurrection. If that fails, then the tendency is to elect him to a professorate in some theological seminary. There are grand exceptions to the rule, but it is often the case that the professorate in a theological seminary is occupied by some minister of the gospel who, not being able to preach himself, is set to teach others how to preach. In more cases than one the poorest speaker in the faculty is the professor of elocution.

We want more wideawake, more abled-bodied, able-minded men, more enthusiastic men, in our theological seminaries and in the professorates—men like Addison Alexander, who could during the week teach young men the theory of preaching and then on Sunday go into the pulpit and with the thunder and lightning of Christian eloquence show them how. What would you think of a faculty of unsuccessful merchants to train young merchants or a faculty of unsuccessful lawyers to train young lawyers?

It is often the case that theological seminaries cut a man and clip him and square him and mold him and bore him and twist him until all the individual is gone out of him, and he is only a poor copy of a man who was elected to a professorate because he could not preach.

We want less dead wood in the theological seminaries and more flaming evangelists. I declare that a man who cannot preach himself cannot teach others how to preach.

At a meeting of the General Assembly of the Presbyterian Church of the United States, a clergyman accustomed on the Sabbath to preach to an audience of two or three hundred people in an audience room that could hold 1500 was appointed to preach a sermon on how to reach the masses! I am told the incongruity was too much for the risibilities of many of the clergy in the audience. Now, a young man coming out from such bedwaring influences, how can he enter into the wants and the woes and the sympathies of people who want on the Lord's day a practical gospel that will help them all the week and help them forever?

Young ministers are told they must preach Christ and Him crucified. Yes, but not as an abstraction. Many a minister has preached Christ and Him crucified in such a way that he preached to an audience of 500 down to 200 and from 200 to 100 and from 100 to fifty and from fifty to twenty and on down until there was but little left save the sexton, who was paid to stay until the service was over and lock up! There is a great deal of cant about Christ and Him crucified! It is not Christ and Him crucified that are needed, but His omnipotent sympathy applied to all the wants and woes of our

immortal nature, a Christ who will help us in every domestic, social, financial, political, national struggle, a Christ for the parlor, a Christ for the nursery, a Christ for the kitchen, a Christ for the barn, a Christ for the street, a Christ for the store, a Christ for the banking house, a Christ for the factory, a Christ for the Congressional assembly, a Christ for the court room, a Christ for every trial and every emergency and every perturbation.

Oh, my brethren in the Christian ministry, we must somehow get our shoulder under the burden of the people on the Lord's day and give them a good stout lift, and we can do it. We have it all our own way. It is a great pity if, with the floor clear and no interruption, we cannot during the course of an hour get our hymn and our prayer or our sermon under such momentum as we can, by the help of God, lift the people, body, mind and soul, clear out of their sins, temptations and troubles.

I think that ministerial laziness often empties the church of auditors. Hearers who are interested through reading newspapers and by active association in business circles will not on the Sabbath sit and listen to platitudes. Hearers will not come to sermons which have in them no important facts, no information, no stirring power, no adaptation to the first. The new will not listen to the pulpit unless at least on the subject that day under discussion the pulpit knows more than the pew. Ministerial laziness has cleared out many churches. Such ministers wander around from parlor to parlor under the name of pastoral visitation and go gadding about through the village or the city on errands of complete nothingness and wrap their brains around a cigar and smoke them up and then on Saturday afternoon out a few crude thoughts together and on Sunday morning wonder that the theme of Christ and Him crucified does not bring a large audience, and on Monday sit down and write jeremiads for the religious newspapers about the decadence of church attendance.

People will not go to church merely as a matter of duty. There will not next Sabbath be a thousand people in any city who will get up in the morning and say, "The Bible says I must go to church. It is my duty to go to church; therefore I will go to church." The vast multitude of people who go to church do so because they like it, and the multitude of people who stay away from church do so because they do not like it. I am not speaking about the way the world ought to be; I am speaking about the way the world is. Taking things as they are, we must make the centripetal force of the church mightier than the centrifugal. We must make our churches magnets to draw the people thereunto, so that a man will feel uneasy if he does not go to church, saying, "I wish I had gone this morning. I wonder if I can't dress yet and get there in time. It is 11 o'clock; now they are singing. It is half-past 11; now they are preaching. I wonder when the folks will be home to tell us what was said, what has been going on."

When the impression is confirmed that our churches, by architecture, by sociality and by sermon, shall be made the most attractive places on earth, then we will want twice as many churches as we have now, twice as large, and then they will not half accommodate the people.

Therefore, my brother Christian worker, if you and I find two illustrations for a religious subject, and the one is a Bible illustration and the other is outside the Bible, I will take the latter because I want to be like my Master. Looking across to a hill, Christ saw the city of Jerusalem.

Talking to the people about the conspicuity of Christian example, He said: "The world is looking at you; be careful. A city that is set on a hill cannot be hid." While He was speaking of the divine care of God's children a bird flew past. He said, "Behold the ravens." Then, looking down into the valley, all covered at that season with flowers, He said, "Consider the lilies."

Oh, my brother Christian workers, what is the use of our going away off in some obscure part of history or on the other side of the earth to get an illustration when the earth and the heavens are full of illustrations?

Oh, Christian workers, we have got to freshen up. What is the use of our going back in the Christian classics to find an illustration of the victorious Christian dead when my personal friend, Alfred Cookman, a few years ago went away in an imperial grandeur as did Edward Payson?

Is it any less an illustration to me and to you because I met him a few weeks before in front of Trinity Church, Broadway, and I said: "Cookman, you look as if you were working too hard?" Where in all the classics is there such a story as that of Cookman, when in his last moment he cried: "I am sweeping through the gates washed in the blood of the Lamb?"

Oh, fellow Christian workers, what is the use of our being stale and obsolete and ancient when all around us are these evidences of God's grace, God's deliverance, God's mercy and God's wisdom? We have got to freshen up in our sermons, freshen up in our songs, freshen up in our zeal, freshen up in our consecration, and if we do it, my brethren and sisters, we will no more have to coax people to come to church than if you throw corn on the ground you have to coax pigeons to come and eat it, no more than you would have to coax a tired horse to eat the oats you throw in his manger. Yes, we must freshen up in our Sunday schools and in our prayer meetings and in our pulpits.

It is high time that the church of God stopped writing apologies for the church. Let the men who are on the outside, who despise religion, write the apologies. If any people do not want the church, they need not have it. It is a free country. If any man does not want the gospel, he need not have it. It is a free country. But you go out, oh, people of God, and give the gospel to the millions of America who do want it.

It is high time we stop skirmishing and bring on a general engagement. I want to live to see the Armageddon, all the armies of heaven and hell in battle array, for I know our Conqueror on the white horse will gain the day. Let the church of God be devoted to nothing else, but go right on to this conquest.

When Moses with his army was trying to conquer the Ethiopians profane history says it was expected that he would go in a roundabout way and come by the banks of the river, as other armies had done, because the straight route was infested with snakes, and no army and no man had dared to go across this serpent infested region. But Moses surprised them. He sent his men out to gather up ibises. What this is a bird celebrated for serpent slaying, and these ibises were gathered into crates and into baskets, and they were carried at the head of the army of Moses, and coming up to the serpent infested region the crates were opened and the ibises flew forth, and the way was cleared, and the army of Moses marched right on and came so unexpectedly on the Ethiopians that they fled in wild dismay. O church of God, you are not to march to a roundabout way, but to go straight forward, depending upon winged influences to clear the way. Hosts of the living God, march on, march on! Church attendance, large now, is going to be larger yet. The sky is brightening in every direction. I am glad to see the day an girl five years old think they may see the millennium. The wheel of Christian progress has never made one revolution backward. The world moves, the kingdom advances. All nations will yet salute the standard of Peace. To Him be glory in the church throughout all ages. Amen!