

AMERICAN BUILT A BRIDGE IN BURMAH.

A steamship recently arrived at New York with a little group of men browned to a copper color by exposure to the tropical sun. As they reached the dock a number of people waiting to meet them gave each a hearty handshake and extended congratulations. In the engineering world this group will be long remembered as the men who put up the greatest railroad bridge in the world in a country none of them had ever seen, amid trials and troubles which might be expected to discourage anyone but a Yankee engineer.

Two or three years ago the surveyors of a railroad line in Burma came

As soon as the cablegram came from the Burma railway company accepting the American bid a special force of workmen was selected to turn out the material as rapidly as possible, and the bridge department worked day and night.

The work, particularly in its initial stages, was performed amidst various perils. In the depths of the gorge, matted with underbrush and scattered with huge rocks, lurked the deadly snakes of India. Some of the coolies were bitten and died. Poisonous vegetation also affected the men, and vapors arising from the depths of the ravine bred low fever in American bones.

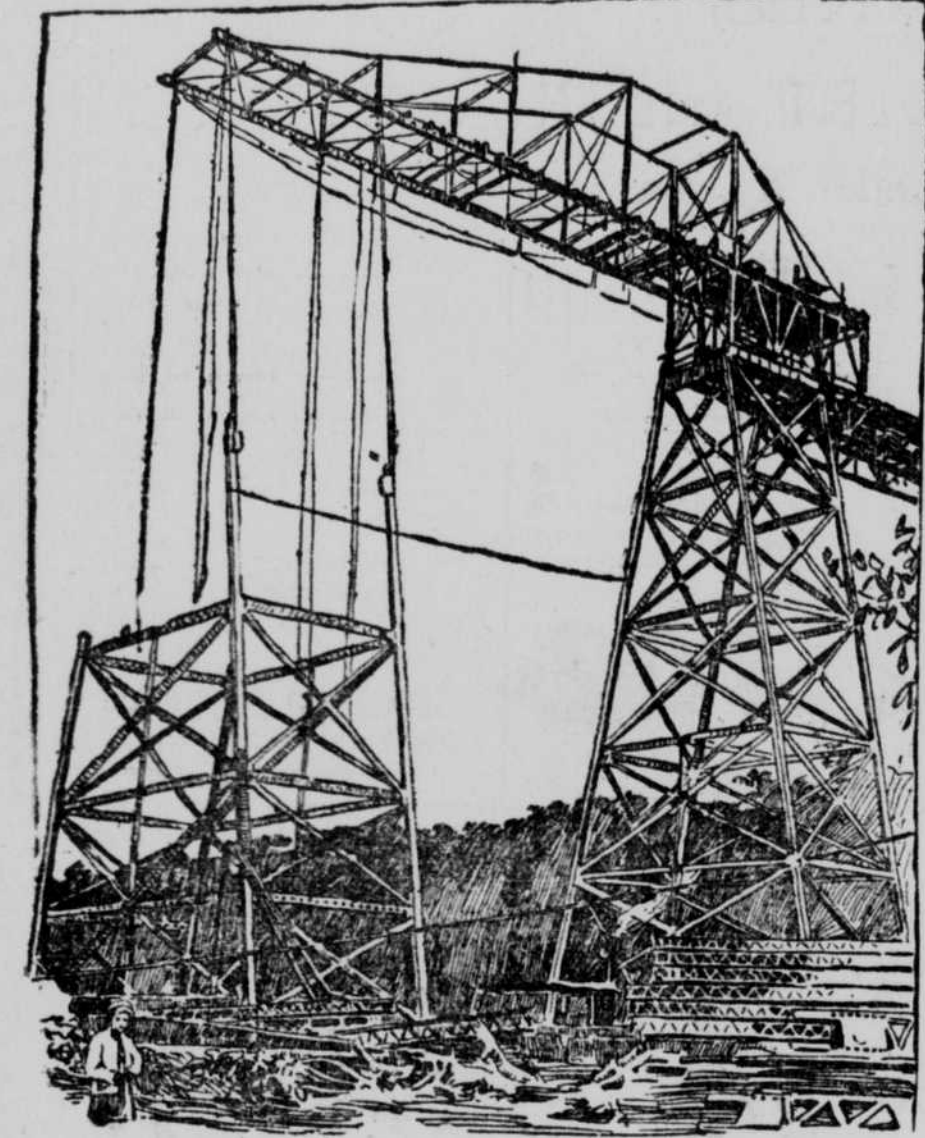
which formed its lower portion were 219 feet in length, and from its top to the railroad track was 40 feet. To keep this immense weight from toppling over, a counter-weight of seventy-five tons was loaded upon the rear portion, which was mounted on wheeled trucks so that it could be rolled along as the bridge was erected.

The little band of thirty-five Americans put the mammoth bridge together from eight months after the work was commenced. The bridge is so strongly built that it will support a train of loaded freight cars reaching its entire length, in addition to four locomotives weighing fifty-four tons each. Owing to its great height, it must be strongly braced to withstand the force of the gales which sweep down the valley at a velocity of sixty or seventy miles an hour. The engineers had to calculate upon these and other delicate points, but tests made after completion show that they calculated to a nicety. It was expected in building the bridge to have the aid of compressed air in boring holes through the steel and fastening the rivets, but when the 500 natives who were employed as laborers heard the hissing and noted the effect of the unseen force, they believed it to be something supernatural and not one of them could be induced to touch the compressed air tools. As a result, all of the bolts and rivets, nearly two hundred thousand, were fastened in the old-fashioned way by hand hammers. This delayed the work about one month.

The work was done under the supervision of J. C. Turk of New York, an engineer for the Pennsylvania Steel company, under the general direction of Mr. J. V. W. Reynders, general superintendent of the bridge department, who prepared the drawings for the structure. The bridge cost \$700,000, or \$310 a foot. Of the little band of Americans who went half way around the world to do this work, every man came back alive and hearty, but with the memory of one of the most trying tasks ever completed by Yankee pluck and ingenuity.

Living Stones of South Sea.

The visitor to the Falkland islands sees a number of what appear to be weather-beaten, moss-covered boulders of various sizes scattered here and there. On attempting to turn one over he is surprised to find that it is anchored to the ground by roots of great strength. These are not boulders, they are trees! No other place in the world can show such a peculiarity of "forest" growth. The Falkland islands are exposed to a strong polar wind, which renders it impossible for trees to grow in the proper form; nature has consequently adapted herself to the prevailing conditions and produced this strange form of plant life. These "living stones," as they are called, are quite devoid of "grain" and it is next



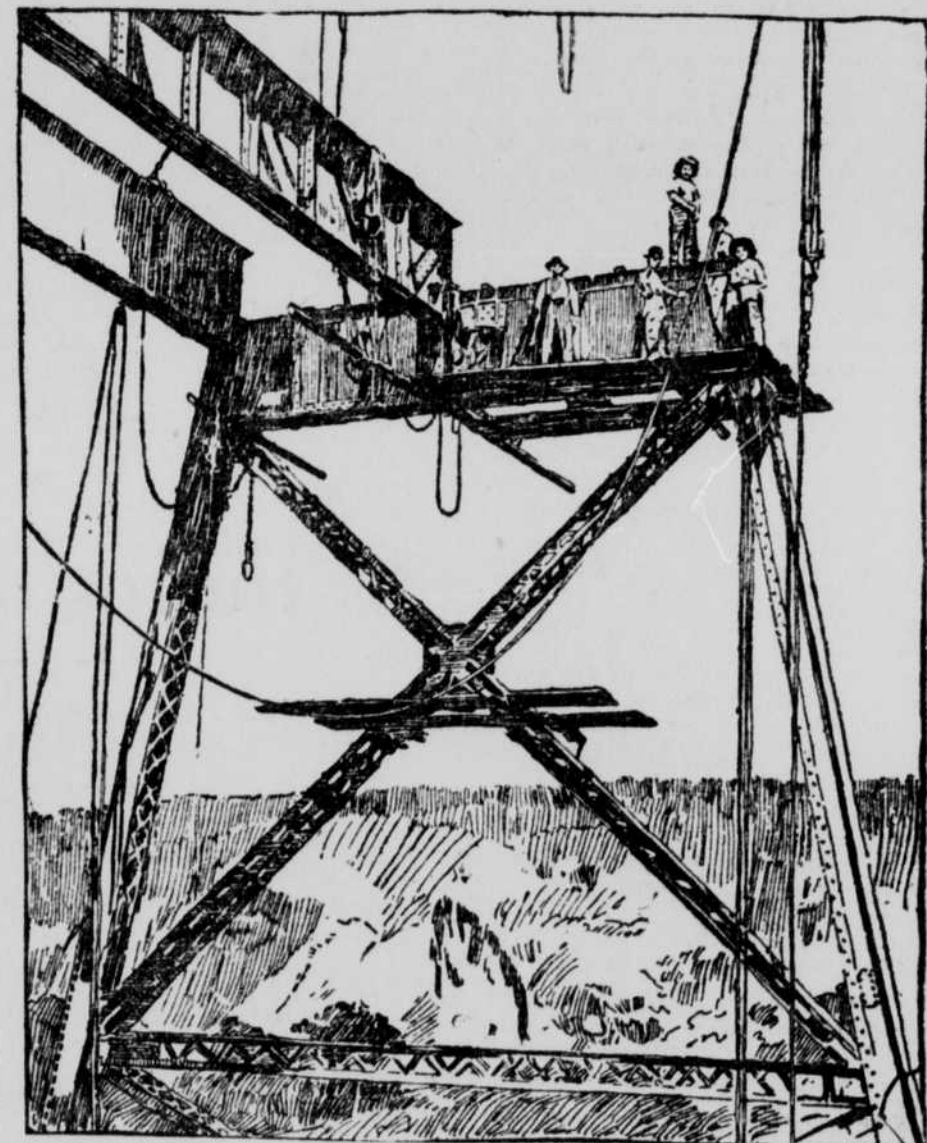
BUILDING A 200-FOOT COLUMN POINT.

to a hole in the ground which was so deep that it seemed as if a balloon would be the only way to cross it. This was the Goktak gorge. To go around it would require twenty or thirty miles more of track, and the question arose whether it could be spanned by a bridge. The general officials of the company thought it could if the right men could be found to undertake the work. Several American firms were invited to put in bids, and one of them, the Pennsylvania Steel company, secured the job. It was a case of hurry from start to finish, for the work must be done within a year from the time the contract was let. The steel for the towers, girders and other work had to be turned out of the works, shipped to New York, loaded on board vessels, carried to Rangoon, loaded on cars and then transported 450 miles to this hole in the ground. Special machinery had to be built to put the bridge together and to raise the different pieces and hold them in position. In all, about 5,000 tons of metal alone were required for the work, the bridge itself taking 4,852 tons alone.

From one side of the valley to the other was nearly half a mile. For two-thirds of this distance the railroad track had to be laid at heights ranging from 100 to 250 feet above the ground.

There were beasts of prey, too, but although they were seen and heard prowling about the camp at night the bridge builders suffered nothing from their depredations except the loss of some live stock. The incessant rains turned the ground into liquid mud, and the masons laying the stone foundations for the towers were held back ten weeks. At last these were completed, and then the "traveler" was put in position.

This was a mechanical giant, the largest by far ever used in bridge construction. It lifted and lowered the



WORKMEN ON THE HIGHEST PIER.

tons of steel and held them in its grip while the men fastened them into place. Although in the photographs of the work the traveler looks to be only 20 or 30 feet in length and to weigh perhaps four or five tons, it extended from its support on the end of the railroad track a distance of 165 feet over the gorge and contained ninety tons of metal alone. The beams or trusses

to impossible to cut them up and utilize them for fuel.—New York Press.

A Thickly Populated Parish.

Islington is the most thickly populated parish in England, having 112 persons to the acre. Bolton comes next.

Blue blood is one of the things that "runs in the family?"

partment believes, to raise all the dates needed in this country. The date palm, although grown profitably only in arid and semi-arid regions, is not in the proper sense of the word a desert plant. It requires a fairly abundant, and, above all, a constant supply of water at the roots, and at the same time it delights in a perfectly dry and very hot climate. The date palm is able to stand much more cold than an orange tree, but not so much as a peach tree.

A useless life is but a living death.

MODERNIZING OF JAPAN.

The Three Distinct Classes of This Island Nation.

The office of the "shogun" now merely represents a tradition in Japan, though in any other part of the world, where events do not move so quickly it would be a very bitter memory. Barely thirty-three years ago the shogunate was abolished and the mikado then stepped forth again to govern as well as to reign after an eclipse which had lasted nearly 700 years. During all this time the mikado at the old capital of Kyoto had been a mere figurehead, very often a child, never very much more, and all the real power resided in the shogun, or "generalissimo," who controlled the military forces of the empire. Practically only two great families supplied the rulers from 1336 until 1867. With the shogunate also came to an end the caste of the samurai, or military retainers, in all but their title. This is still in existence. There are three classes in Japan—the kwazoku or nobles, the samurai, or gentlemen, and the heimin or common people. The samurai used swords and foreign residents in the early days of the treaty ports have many tales to tell of the complications to which this gave rise. By an imperial edict of 1876 the wearing of swords was prohibited; the people obeyed without murmur, and a few years afterward the blades that had been treasured in Japanese families for many years were adorning the walls of foreign villas. Rather more than ten years ago an Australian opera touring company acted "The Mikado" in at least two of the treaty ports of Japan. In deference to representations, not from the Japanese government, but from the British consulate, the opera was billed as "A Gentleman of Japan." The natives who witnessed its representation found it ever more full of humor than Mr. Gilbert intended it should be and went away fully convinced of the superiority of the Japanese drama.—Chicago News.

NUTRIMENT IN QUAIL EGGS.

Southern Negroes Eat Partridge Eggs and Grow Fat Thereon.

"Few persons are aware of the fact," said a well-known physician to the New Orleans Times-Democrat, "but it is true nevertheless that the egg of the partridge is one of the most nutritious things in the world. They are not used for eating purposes except in very rare cases, and then it generally happens in remote rural districts. I have known negro families in the state of Louisiana during the laying season to live on the eggs of partridges. And they would flourish handsomely and grow fat on account of the rich properties of the eggs. These eggs, of course, never find their way into the market because they are never taken from their nests except by such persons as I have mentioned, and they rob the nests. I suppose because their principal food supply comes from this source. Quail meat comes pretty high in the market at all times, and the average man will find it more profitable to spare the eggs and wait for the birds when the hunting season rolls around. These men would pass a hundred nests in one day without disturbing an egg. The sport of hunting the birds is an additional incentive. The average negro does not care so much about this aspect of the case. He figures that the white man, having the best gun and the best dog, will beat him to the bird. So he goes after the egg. One partridge will lay anywhere from a dozen to twenty eggs, and a nest is a good find. I know of many families in rural sections who feast on these eggs in the laying season. I have tried the egg myself as an experiment. I found it peculiarly rich. It has a good flavor, is very palatable, and, in fact, is altogether a very fine thing to eat. Really, I believe that the egg has more nutrition in it than the fully developed bird, but, of course, as one of the men fond of the game in the field, I would like to discourage the robbery of the nests."

His Life Saved by a Mosquito.

A Castle Valley man says: "The other night I went to bed very late, undressing and putting out the gas in a kind of dream. A mosquito awakened me with its maddening buzz and I lay in a stupor for a little while asking myself what the over-powering odor was that filled the room and what was the cause of my feeling of dizziness and faintness. Then I tried to get to sleep again, but the mosquito wouldn't let me. It buzzed and bit, and at last it roused me thoroughly. 'What a smell of gas,' I said to myself, and got up and staggered to the chandelier to find one burner turned on full. I would have died of asphyxiation if I had not been aroused, and it was a mosquito that awakened me. I may truly say, therefore, that a mosquito saved my life."—Philadelphia Record.

Berlin's Street Railways.

In Berlin the street railway company is required to grant a 10-hour day to its employes, to provide waiting rooms, properly warmed and lighted, and, from January, 1901, to fix a uniform fare of 2.38 cents for the whole length of the line, both within and without the city. The city receives 8 per cent of the gross profits plus half the net profits over 12 per cent on old capital and 6 per cent on new capital. At the end of the year 1919 the lines and rolling stock will become city property. These terms are drastic, indeed, yet the citizens are not satisfied, and additional lines are now planned.

Stage Woman Writes a Book.

Yvette Guilbert is writing a book. It is expected to prove a sensation, as it will contain racy comment on the members of her profession and will deal at considerable length with her experiences in America.

A New Eldorado

Awaits Exploration at Present in British Kachinland.

On the northeast borders of Upper Burma is a land where the chief articles of commerce are gold dust, amber, rubies and jadeite. Trade must take on a peculiarly fascinating aspect where the articles dealt in are such as these. A pork-packing establishment in Chicago is much more to be desired from a commercial standpoint than a ruby mine in this Kachinland, as the place is called, but how much more romantic and dazzling the Kachin property sounds when you talk about it. It is a wild land from which the rubies, the jade, the gold and the amber come, and is inhabited by a wild and savage people, who work the precious deposits of the country in a primitive manner. But the British are there now, and it is only a question of time when the far-off region will be exploited for all it is worth. This jade, or jadeite, is dug out of a mountain in one place and in another it is found at the bottom of a river, and the natives dive for it from rafts. This jade is translucent and varies in colors from a creamy white through different shades to a delicate green. The Chinese use it extensively for vases, rings, bracelets, etc., and make beautifully carved ornaments out of it. One variety of jade they call "kingfishers' plumes," on account of its coloring. The finest jade in the world—comes from this almost unknown Kachinland, and bands of Chinese merchants are constantly coming and going, bringing cloth, etc., which they barter for the glittering products of the country. The rubies the Kachins get by digging into the hillsides, and the gold dust by washing it out of the sands of the streams. This land is the home of the "pigeon's blood" rubies, which are found also to some extent further south between Kachinland and Mandalay, "where the flying fishes play." But no rubies are so pure and beautiful in color as those of Kachinland. Since there is so much gold dust in the streams of this wonderful country it is probable that there are stores of

gold in the mountains which have waited through the centuries to be dug out. Rubber trees grow in this region and all manner of valuable woods are in the forests. The British have been in nominal control of Kachinland for some years, but never have really occupied the country. Every now and then an expedition has to be dispatched there to restore order and to remind the natives that they are British subjects; but civilization never yet has penetrated through the mountains and the dense forests of this land of rubies, gold dust and jadeite. Nearly all the trade of the country is carried on with the Chinese; but the government of India now has it in mind to open up the country to trade with Burma and hence with the rest of the world. It is a virgin field for exploitation, and in these days, when no corner of the earth is neglected in the search for riches, Kachinland cannot long escape the general fate of all rich regions. Already Britishers have visited Kachinland to spy out the country and blaze the way for the army of exploiters which will come later. The latest news of this strange country has been brought back by Captain W. S. Eardly Howard, a British officer of Punjabees, who lately returned from a trip to the Kachin Hills. In the Wide World Magazine he gives an account of the curious people who live among the rubies and the jade and tells of their many curious customs. Slavery exists there, and the natives are exceedingly superstitious. "The members of a village," says the captain, "seldom cultivate more cereals than are required for their own consumption, but barter among themselves guns, gongs, slaves, etc., although they are rapidly acquiring an appreciation of our coinage and methods of trade."

Every known language contains such names as cuckoo, pewit, whippoorwill and others, in which the sound emitted by the animal is utilized as the name.

He Expels Devils.

And Incidentally Says That the Sun Is as Cold as Ice.

Dr. William D. Gentry, who conducts a mission in Chicago, claims to have and to exercise the power of casting out devils. He began the work, he says three years ago when a woman brought to him an afflicted child. The victim made a hissing noise with its mouth and for a time the doctor was perplexed to know whether the evil spirit in possession of the child was a snake or a goose. He ejected it, however, and since then the doctor has been in the devil-expelling business.

Dr. Gentry is a great believer in the efficacy of prayer and relates one case that was cured by supplication after all medical means had failed. The doctor was then a practitioner himself, but since that time he has given up his medical practice and has labored to heal the sick with the power that he claims has been conferred upon him. He takes no stock in Christian Science and unlike Dowle he has no use for money. His services are free.

The doctor has a peculiar idea about the part the sun plays in our planetary system and it is worth quoting. He says the sun has no heat, that it is as cold as ice. "The sun," he continues, "is a dead planet, and it is only useful to the world for the purpose of giving light. The astronomers will tell you that it is a blazing mass, and

has been a blazing mass since the creation of the world. The absurdity of such statement is self-evident. How can anything keep on burning and not be consumed? The sun was burned out ages ago. It furnishes us light simply by acting as a reflector for the myriads of worlds in the firmament.

"Whence comes the world's heat, then, you ask, and what causes the change of seasons? Part of the world's heat comes from its interior, which is a blazing and liquid state. The rest of the heat comes from its atmosphere, which is brought into friction with the various stratas through which the revolutions of the world carry it. These stratas vary, and it is owing to their variance that we have the changes in temperature and in seasons.

"In time this mass of fire in the interior of the earth is going to destroy it. There is a constant change going on in the physical aspect of the earth, due to this fire, but the trouble is that observers do not attribute them to the proper cause. The Bible says that the earth shall perish by fire, and this prophecy, to my mind, refers to the internal fires of the world."

A man soon forgets his faults when they are known only to himself.

Morocco Maidens

Their Girlhood Is Brief, as They Generally Marry When 12 Years Old

In Morocco the period of girlhood is short. The marriageable age is 12 years and a father seldom keeps his daughter after she has reached 15. The age of the bridegroom does not matter, and a child of 12 frequently receives a husband of 60. When a girl becomes engaged it is her parents' duty to fatten her, and she is put into training for this.

Every morning she takes the soft part of her wheat bread and rolls it into long, round pieces about twice the length of her little finger, and of the girth of her thumb. After each full meal she eats three or four of these, gradually increasing the dose. At first she is allowed to wash them down with milk or green tea. Later on liquids are forbidden. Most girls manage in time to put away 50 or 60 of these aids to obesity every day. By the time the wedding day comes around brides have wholly lost their slenderness and after a few years resemble huge sacks of down.

Weddings always take place in the evening and the long procession is an indispensable part of the ceremony. The woman is neatly enveloped in gauze and muslin and packed into a trim little red box, just as if she were an automatic doll or the newest thing in hats, so that she can no more be seen than a diamond wrapped up in wadding and shut in a basket. The box is fastened on the back of a mule or a horse and when these details are satisfactorily settled the procession. All her kith and kin, as well as the relations and friends of her future lord, ride in state or solemnly march on foot to the sounds of weird music, which would madden a European. The

instruments are ear-splitting. And if the families have a proper sense of what they owe themselves they are not satisfied even with this, but invest in gunpowder and keep firing all the way to the bridegroom's house.

Assistant Secretary Sanger a Worker.

One of the hardest workers and most industrious officials of the United States government, according to The Army and Navy Register, is W. Cary Sanger, the assistant secretary of war. He reaches his office about 8 o'clock in the morning and keeps at work with only a short intermission for a noon-day luncheon until 6 o'clock and after. He finds time to see everybody, and to talk according to the merit of the case.

America Cotton-Growing Has Increased.

Where cottonseed is responsible for a tremendous increase in the production of cotton in Russia, middle Asia, Bakhara and Khive. The year 1900 shows an increase of 44 per cent over 1899 in the Asiatic lands, and the increase in the Russian district is 23 per cent. Most of the former corn-fields are now being planted with cotton.

Too Much for Him.

She—Don't you love to hunt four-leaved clovers?
He—No; I hunted them with another girl once, and we ran upon one in a jeweler's window—green and white enamel—diamond dewdrop in the center—\$25.

Happy is he who lets himself owe no man and lets no man owe him.



THE GIANT TRAVELER.

Then came a drop of 320 feet to the top of a bridge nature had thrown across one of the mountain rivers of Southern Asia. Upon this natural bridge, just wide enough to form a safe support, heavy steel towers were riveted together to such a height that the men working upon them at the top looked like insects to the observer from below.

PALMS FOR ARID PLAINS.

Trees From the Nile May Solve the Waste Lands Problem.

The department of agriculture seems to entertain the belief that the date palm may solve the problem of what to do with the arid and alkali lands of Arizona, California and other western states. Experiments have been made in the past by the department and experiment stations, but renewed interest is being taken by the section of plant introduction of the department of agriculture, and Professor D. G.

Fairchild, agricultural explorer for the department, now traveling in Africa, has procured a number of suckers, or offshoots, from the delta of the Nile, which he has shipped to the department and which will be distributed in the southwestern part of this country. In the United States the date is an article of luxury, but in its native country it is a most important food, many regions in Arabia and the Sahara being uninhabitable but for the date palm. The United States annually imports nearly \$1,000,000 worth of dates, but it is possible, the de-