

# Are the Spots on the Sun Inhabited?

By ALEXANDER YOUNG,  
An Indiana Astronomer Who is Attracting Notice.



The lenses which have been used by me for the purpose of observing the solar panorama were convex lenses turned upon a convex reflector, which when constructed into an instrument called a compound solar microscope with chromatic and achromatic regulating power will be available, I believe, to any vision.

We will now suppose this instrument to be turned upon the sun's image presented upon the face of the reflector, the inner tube which contains the eye piece being pushed in at its full length. The observer will now behold the whole surface of the sun as the outside of a spherical ball, suspended in the heavens, apparently covered with a netlike element underlaid with another element of purple hue. The whole floor of the large spot located in the upper limb, and partly across the solar axis, presents to view a vast region not less than 100,000 miles from one side to the other; a lusterless white characterizes every part, save the oval areas of pale blue, of which there are many, and which are probably vast oceans, for the largest one is not less than 10,000 miles in length by 5,000 miles in breadth, the others covering areas of lesser breadth. Near the largest of these blue oceans there arises from the solar surface what seems to be a white object of lofty height casting its rays of light over probably incredible distances in every direction and apparently supplying the absence of the illuminating element above. Surrounding parts of the sun's surface receive its benign influence of light and warmth with the constancy of one perennial day. Close beside this wonderful object there is a ribbon of pale crimson hue flashing at times across the white surface at its side; so transparent is this crimson, vacillating substance that the whiteness it overlaps remains with undiminished distinctness; objects of the same character, but of lesser dimensions, are visible in other parts of the great spot.

We will draw out the inner tube still more: when we behold thread-like veins of bright green running in many directions over the whitened surface of this great spot; between these green veins are supposed to be the valleys and plains that lie between what we shall quickly see to be mountains of lofty height. For again, as we draw out still further the inner tube, they rise up in all their grandeur before our wondering vision, green as fields of clover, from their summits clear down their sloping sides to the valleys that lie at their feet, which are also wrapped in a mantle of green hue. But the blue waters of the oceans are gone; their beauty although still there, is made secondary to the fountains of green that are everywhere.

Alexander Young

# Power of World Public Opinion

By EDWARD M. SHEPARD.

SOMETIMES it is said, I think absurdly, if not unpatriotically, that it was only five years ago, during our Spanish war, that the United States really became a "world power." The saying seems to me quite unfitted to the true place in military and naval power and the material respect of the world which our nation has held since Jackson's victory over British veterans 78 years ago, or since the announcement of the Monroe doctrine, or since the assertion during Jackson's presidency of our rights against foreign countries, or since our stupendous exhibition of military power during the civil war. We have for generations been a veritable world power, even if until lately we did not pass under the glamour of imperial or colonial policy.

I beg of you to observe, however, that it is not of world POWERS of which I am now writing, but of world POWER. We are not concerned with the lesser and relatively obsolete or obsolescent exercise of brute force in wars, large or small. In due time we shall escape from the policing of the earth by iron and blood; at least, that police will move only rarely and when insensate folly shall be deaf to the command of an enlightened and benevolent world sentiment. The ultimate risk, even from a military or naval point of view, or that of commerce or finance, offending that world sentiment, will be more serious than the risk of some specific and immediate offense against any one of the war lords of great nations. I am not to-day concerned with the world powers known to diplomacy, the United States or Great Britain or France or Russia or Japan, but with the powerful sentiment of the whole world, which, under God, will rule all the "world powers," subduing all their diplomacies and armed forces. Already such a true world power, slight though it be to what the future will bring, controls from day to day specific national acts over every populous land and traveled sea within the 360 degrees of latitude. Already are there world sentiments of right and wrong, of justice and spoliation, of mercy and cruelty, of glory and shame. Already is the power of the public sentiment of the world concretely exercised by commands to do or refrain, given within a few weeks or days or even a few hours after the deeds or events which call them out.

Within the past few weeks an event not in itself of capital importance has given us another illustration, perhaps the most striking yet, of the power of a world public sentiment now fully come of age. But a month or two ago a few shot thrown by a German gunboat into a small South American fort brought an outcry the very next day from the whole world around. Venezuela cried out to the United States, and within a few hours after the unheroic bombardment every American newspaper had its say. Within 48 hours it was a topic in the British parliament; within a few more the comments of statesmen and cablegrams from Washington were in the foreign offices of Paris and Berlin. The German war lord stayed his hand when he understood the world sentiment, and seemed willing to be soothed by a cheque from an American iron master; and his British ally was also ashamed.

# The American and the French Newspapers

By PAUL De PAY,  
Editor of the Petit Parisien.

ONE thing that struck me while in American was the frank way in which the managers of the American newspapers open their doors to all comers, even competitors. I found a great deal of fraternity and no jealousy. We do not do that here.

We make money on circulation; the Americans frequently lost on that, but gain enormously on advertisements.

The interior organization of the American newspapers, as a rule is superior to ours.

The New York reporters took my breath away. I noticed that the American papers pay comparatively little attention to politics while in France a paper with no politics could not exist. Business first is the American motto. He wants news in the paper, and then, if he has the time, he reads the politics.

# TUNG-CHIH, EMPEROR OF CHINA.



Although his name is Tung-Chih, the emperor of China reigns under the style of Kwangsu. He was born in 1872. He was chosen by the imperial family to succeed his cousin, who died without naming a successor, in 1875, and, until 1889, his aunt, the empress dowager, acted as regent, as she had previously done during the long minority of his predecessor, who was her son. On September 28, 1898, in consequence of the emperor's action in decreeing a number of radical reforms, he was sequestered, and the empress dowager resumed active direction of the government. The old lady still runs things to suit herself.

## BLUE JAYS HUNT SNAKES.

The Birds Have a Very Strong Antipathy Toward All Venomous Reptiles.

It is commonly supposed that all birds, at least those of the small species, fall easy victims to snakes. There are stories innumerable of the manner in which the reptiles charm the feathered creatures and end by swallowing them at a gulp. But there is one bird that is not susceptible to the fascination of his snakeship's eye, and that is the common blue jay, found in the woods all over the United States, says the Chicago Chronicle.

A gentleman who has lived for many years in the country asserts positively that the blue jay can speak at least one word as plainly as a human being and that word is "snake." "When a boy," he said recently, "I killed many snakes that would have escaped but for the sharp eyes of the blue jay. Some species of reptiles will climb small trees and bushes and trap their prey in that manner. They feed on small birds principally. But they never catch a jaybird. He is the snake detective for the whole bird family. As soon as a blue jay sees a snake he

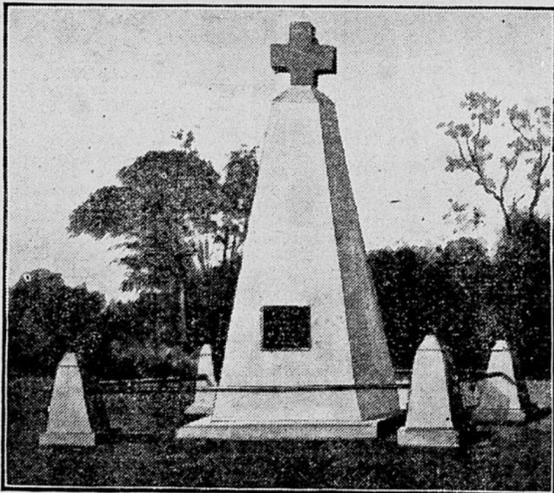
## EVERYBODY GOT A PRIZE.

Novel Euchre Party, Which Ended Satisfactorily to Everybody Who Had Played.

The Long Island society, Daughters of the Revolution, enjoys the distinction of having conducted a progressive euchre contest at which every one present received a prize and everybody was satisfied, says the Brooklyn Eagle.

The company was mainly confined to members of the society, and in the cards issued for the occasion the request was made that each one desiring to participate would contribute a prize not to exceed in value 25 cents. Although the price limitation was not strictly adhered to, the souvenirs were for the most part of articles of female use or for ornament. The players, according to the number of games they had scored, made their selection at haphazard from a collection of paper enveloped articles. The fun came when the voluminous wrappings were removed and a hat pin, a bonbon dish, coffee spoon, tray, photo frame, book, bit of china, top or trinket was disclosed. Considerable ingenuity was displayed

## LIVINGSTONE MEMORIAL AT CHITAMBO.



Chitambo, the scene of Dr. Livingstone's death, lies in the district of Serenje, Africa. The monument erected to his memory which is here depicted was built altogether by the natives of that district, under the supervision of English architects. Dr. Livingstone was not only a great missionary, but also an explorer of the first rank, and the work he has done will live as long as the dark continent itself. He was revered by thousands of natives, to whom he carried the gospel and with it an understanding of the dignity of human life and human character.

sounds the alarm. You can hear him squall a quarter of a mile, and he articulates the word 'snake' as plainly as I can. He will hop about on a limb and yell 'snake! snake!' in such a shrill, excited voice that pretty soon others of his tribe hasten to the scene, and all join in giving the alarm. All over birds, hearing this warning cry, fly away, but the blue jay splits his throat with cries until the enemy has disappeared.

"A snake once caught a blue jay by charming him. The jay yelled 'Snake! snake!' at the top of his voice. Several hundred blue jays flew to his rescue and pecked the snake's eyes out, and literally picked him to pieces, thus saving the life of their companion. Ever since that time the blue jay, upon seeing a snake, gives the alarm and all blue jays within hearing will hasten to the scene and lend their voices to the warning. This may sound incredible, but it's true," said the narrator in conclusion. "Not at all, but it's a good story to forget under the circumstances," added the nervous young man, who at once proposed the consideration of the relation of the jound grape to the doctrine of metempsychosis.

## No American Face.

A writer in London Health says that in no sense of the word is the American face distinctive, and there is nothing that will call it up in the mind from the world's group of Caucasian faces. The answer to this is that the American face is a composite, necessarily.

in wrapping up the prizes, so that no hint was given of the contents of the package. The cleverest bit of deception in this way was the inclosing bonbon dish in a cracker box bearing the name of a popular brand and looking as if the original contents had never been disturbed.

## The "Fez" Trade.

Until a comparatively few years ago Fez, the capital of Morocco, had practically a monopoly in the manufacture of the Turkish national headdress named after it—the "fez"—as it was supposed that the peculiar dull crimson color of the tasseled skull cap could only be obtained by using the dye made from a certain berry largely grown in the neighborhood of the city, which is also much used in the dyeing of morocco leather. Now, however, France and Turkey, and to a certain extent Austria, actively compete with Fez for what is still a very lucrative trade.

## Babies of 1903.

The baby born in 1903 has three times a better chance of living through its first year and five times a better chance of living to be five years old than it would have had a dozen years ago.

## Life of Leather.

The life of modern leather made by the use of sulphuric acid, is but 15 years. This makes it necessary for the British museum to spend \$20,000 a year in renewing leather book bindings.

# Fashions Favor the Youthful

Youthful charm can carry off successfully almost any mode, but there are fashions, as there are materials that are intrinsically youthful, subtly in harmony with girlish freshness and grace, and this is a season of just such fashions, just such materials.

All these filmy materials, these flower-strewn surfaces, these fluttering scarfs and laces, these frills and shirrings and flounces and tuckings, the rose garlands and violet bunches—they belong to the slender girlish figure and the youthful face. Stout matrons will seize upon them, but the reigning modes are unquestionably youthful. The debutante has come into her own.

Of course there is gorgeousness and elaboration enough for the older women; but the gold and silver, the jeweled laces, the rich embroideries so much in vogue, do not express the season's spirit as does the shimmering daintiness of the flowered mousselines, with their laces and pretty ribbons.

Picturesqueness will be the keynote of summer fashion, and though the tailor frock and shirt-waist suit will preserve a degree of severity, even these conservative show frivolous leanings toward drooping shoulders and loosely falling stoles and artistically designed sleeves; while the dressier frocks frankly rank themselves on the side of the picturesque.

Much of this effect is gained at great expense, but the picturesque frock is by no means necessarily a costly

frock; and the new materials should inspire even a home dressmaker to artistic feats.

Lent is a favorite time for home sewing, and many a girl is doing severe penance by keeping a seamstress to fashion summer gowns; while the girl who scorns homemade costumes has either filled her trunks with thin frocks and fitted southward or is conferring with her dressmaker and preparing for the summer campaign.

For the home dressmaker the gowns shown in the illustrations are not problems too appalling, though no prettier models of a simple sort are to be found in the dressmaking shops, and all are designed from ideas furnished by expensive models.

With the rise of the blouse and the loose effects has come the triumph of the unlined summer frock. There was a day when a frock intended for tubbing was of necessity made by some unimportant personage. The great dressmaker set the laundress at defiance and would not make even a dainty without lining and boning.

We have changed all that. The thin summer frock turned out by an artist is still, in a majority of cases, untubable, but that is because of its sheerness, its laces and intricate handwork and general elaboration, not because of its lining. The unlined blouse and skirt are much in evidence and all severe lines are taboo.

To obtain the proper negligé effect without crossing the line of slouchiness, to compass the artful artlessness of the correct summer frock requires care and thought. In the first place, the under garments must be adapted to the frock.

Badly fitted corset covers, petticoats, etc., can spoil the lines of any thin frock. There should be no awkward fullness around waist and hips. The petticoat should reach to the floor and have the correct fullness and flare around the hips.

# Notes of the New Spring Modes

THAT fashion is aiming at a complete and thorough change is very noticeable to the professional eye—although naturally the change is but gradual—and we are to have less tucks and furbelows, or, in other words, not so many stitches will be needed in frocks of the future, but trimmings, in the way of appliques, velvet facings and inlets, silk garnitures, etc., will be in vogue.

Passanterie is to be much worn, especially on the smart bolero coats which will be favored this spring, while silk cords and tassels adorn almost every outdoor garment.

The shoulder cape gains favor, and many of the latest bolero coats show a cape of some sort, and it is said they will take an important part this season. In consequence of this, deep lace, as well as applique collars, are prepared to droop well over the shoulders.

Some of the new boleros reach nearly to the waist, and are left detached like a short sacque coat, some having plaits, others being plain; and as to the neck finish, it is a matter of choice, for there are small turn-over collars, wide-shaped, cape-like collars, or no collars at all.

It is an interesting fact that sleeves will be much smaller and plainer, yet the bishop or banded shape will hold its own for a long time to come, and be arranged into all sorts of fanciful

Blouses are as much worn as ever, and as to variety, there never were more charming models shown. Some are tucked, plaited, or plain, with or without yokes; others with plastrons; others with shaped trimmings in applique designs; while many have loose or short jacket fronts, which certainly afford a change, although they do not suit all figures.

There is every indication that the thoroughly well-cut gored skirts will



A SPRING STREET COSTUME.

come into fashion—plain trained skirts to fit hips perfectly, then gradually flow out round the feet, finished with vandyked trimmings in passementerie, appliques, etc.—a pleasant change from the flounces, tucks, etc.

Stitched straps and flat braids trim many of the new woollen goods and the new short bolero sacks make the smartest of outdoor garments for spring. They slip on easily over the blouse, and reach to or nearly to the waist, giving a very trim appearance to the figure.

For golf, cycling and other outdoor sports, the latest creation is a knitted or crocheted bolero coat, double-breasted, fastened on the one side with large buttons, the waistband pouched in front, and with bishop or banded sleeves. The neck opens a trifle to show a collar and tie, and very smart these boleros are, made in one or two colors.

These knitted boleros are lined with plain silk or satin, or with quilted silk, as may be preferred.

Many of the new spring coats are sack-shaped, and made after the style of the Japanese coat, showing most handsome embroidery.

Later on, when the warmer days are with us, we may expect much variety in the way of small but smart capes and peleries.

## Latest Craze in Quilts.

Autograph quilts are in vogue. They are formed of patches on which the names of contributors are written in indelible ink. The name of a celebrity is surrounded by those of lesser importance, in a square, circle or diamond.



NEW SPRING BLOUSE WITH LOOSE FRONT.

cuffs, as well as finished with strappings and ornaments, etc. Some of the new cloth robes are trimmed with appliques of velvet and silk, cut out in both materials, and machined with a contrasting silk.

With these French dress robes are zouave pieces for the bodice, and so handsome are the appliques as to require no other trimming, save a little lace to soften the neck part.

The skirt with fitted hip-piece, and narrow attached front breadth, is the leading one for the present, and it is a shape capable of being adapted to a train, or the new trottoir length. The side breadths and back are laid in wide folds.

This shape skirt is an excellent one for street wear, made just to escape the ground.