ONE DAY IN JAPAN, Lafcadio Hearn Finds It a Little World of Smiling, Gracious Elves.

EVERYTHING IS ARTISTIC.

Different From the Machine-Made Civilization of the West.

THE RESTFUL BLUE EVERYWHERE.

Delicate Art Perceptions Manifested in Street Lettering.

THE PLEASURES OF THE JINRIKISHA

[WEITTEN FOR THE DISPATCH.] HE ecstasy of the first sunny day in this Orient-so long dreamed of, so much read of, yet all unknown!-the delicious surprise of the first journey through Japanese streets; unable to make one's Kuruma-runner compre-hend anything but gestures, frantic gestures to roll on, anywhere, everywhere,

see and hear and feel as much of this beauti-

Surely there is some charm in the very air, cool with the coolness of Japanese spring, in the month of cherry blossoms-a charm due perhaps to softest lucidity rather than to any positive color-an atmospheric limpidity indescribable, with only a sugrestion of blue in it, through which the most distant objects appear focused with amazing sharpness. The sun is pleasantly warm, as in Mexico; the Kuruma (or jurikisha) is the most cozy vehicle imaginable, and the street vistas-as seen above the dancing, white mushroom-shaped hat of your sandaled ranner-have a fantastic allurement of which you are sure you can Dever weary.

It is at first a deliciously odd confusion only, as you look down one of them, through an interminable flutter of flags and awaying of dark-blue drapery, all made brautiful and mysterious with Japanese or Chinese lettering, For there are no im-mediate discernable laws of construction or wooden houses, mostly unpainted-with their first stories all open to the street, and thin strips of rooting sleping above each shop front, like an awning, back to the mer-screened balconies of narrower min-

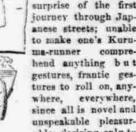
Perhaps the supremery definition in-tervers second stories. You begin to understand the common plan of the delightful tiny shops, with matted floors raised high above the street level— and the general perpendicular arrangement of sign lettering, undulating on silk or ed cotton, or gleaming motionless on d and lacquered sign boards. And you will also observe that blue, the same rich

hieroglyph or ideograph has been evolved into a thing of beauty indescribable. It consists only of a certain number of It consists only of a certain number of brush strokes; but in each stroke there is an undiscoverable secret art of grace, propor-tion, imperceptible curve, which actually makes it seem alive, and bears witness that even during the lightning moment of its creation, the artist felt with his brush for the ideal shape of the stroke equally along its entire length, from head to tail. But the art of the stroke is but a rudimentary skill—the art of their combination is that which produces the enchantment—often so as to astonish the Japanese themselves. It is not surprising, indeed, considering the strongly personal, animate, esoteric aspect of Japanese lettering, that there should be drivers wonderful legends of caligraphy— relating how words written by holy experts became incarnate, and descended from their

became incarnate, and descended from their tablets to hold converse with mankind.

Charms of a Jinrikisha Man. I have a jinrikisha man wearing a white hat, which looks like the top of an enor-mous mushroom; a blue, wide-sleeved, loose, short jacket; blue drawers, close-fitting as short jacket: blue drawers, close-fitting as theatrical "tights," which descend to his ankles, and light straw sandals bound upon his bare feet with cords of palm-fibre. I think he typifies all the docility, swiftness, tirelessness, patience, smiles, bobbings and insidious coaxing powers of his race. His name is "Cha." Cha has already mani-fested his power to make me give him more than the law allows. Cha appeals with un-failing success to the emotional nature of man.

Cha has already discovered by some fine intuition that I do not belong to the foreign commercial class, who hold this higher quality in scorn, and never yield to appeals based on the superstitious existence of it.



able; desiring only to ful new world as possible!

Bewilderingly, Stupifyingly Novel.

being, thus trotting between shafts-with all his hopes, memories, sentiments, suffer-ings, happens to possess the kindliest im-aginable face; the gentlest smile, and the ability to return the smallest favor by a look of infinite gratitude, this compassion mediate discernable laws of construction or decoration; each building seems to have a In my own case the feeling is that pity decoration; each building seems to have a fantastic prettiness of its own-nothing is exactly like anything else, and all is be-nilderingly, stupifyingly novel. But grad-ually, after some hours passed in the quarter, the eye begins to recognize in a wigne way some general plan in the con-struction of these low, light, queerly-gabled and the some thing sparrows upon it, which ures of flying sparrows upon it, which towel he carries wrapped above his wrist as he runs.

Like a World of Elves.

ruptcy. You want the shop and the shop-keeper, and streets of shops with their draperies and their habitants-the whole city and the bay and the mountains begird-ing it-and Fusiyama's white witchery overhanging it in the speckleys sky-all Japan, in very truth, with its magical trees and luminous atmosphere-with all its cities and towns and temples, and 35,000,000 of the most lovable people in the universe. Art in the Poorest Homes. I once heard some one say on being told

SOON TO HAVE COLOR PICTURES.

I once heard some one say on being told of a great fire in Japan: "Oh, those people can afford confiagrations; their homes are so cheaply built!" It is true that the pretty cheaply built?" It is true that the pretty frail houses can be cheaply and quickly re-placed; but that which was within them to make them beautiful cannot. Every object in the poorest Japanese dwelling is an ob-ject of art, even to the commonest article of wood or baked clay; and every great fire is an art tragedy. For this is the land of infinite hand-made variety; machinery has not yet been able to introduce sameness and utilitarian ugliness in cheap production (except in response to foreign demand for

and utilitarian uginess in cheap production (except in response to foreign demand for boil taste to suit vulgar markets), and each object made by the artist or artisan differs still from all others, even of his own mak-ine. And each time something beautiful perishes by fire, it is a something represent-ing an individual mood; it is an ideograph of percendity

of personality. Happily the art impulse itself, in this Happily the art impulse itself, in this country of configurations, has a ghostly vi-tality which survives each generation of art-ists, and defies the flame that changes their labor to ashes or melts it to shapelessness. The idea whose symbol has perished will surely reappear again in other creations – perbaps after the passing of a century-modified, indeed, yet recognizably of kin to the thought of the past. And every art-



AND CHA BUNS AT THE TOP OF HIS SPEED.

Cha has already succeeded in winning my affections. Why? The first sensation of having a human being for a horse-trotting between shafts like a horse, unwearingly bobbing up and down before you for hours-is alone enough to fill the European heart is alone enough to fill the European heart with compassion. And when the human

guided by the dead in the delineation of a flying bird, of the vapors of mountains, of the colors of the morning and evening, of the shape of branches and the spring-burst of flowers; generations of skilled workmen have given him their fancy, their cun-ning, and revive in the wonder of his draw-ing. What was conscious effort in the be-ginning became unconscious in later centu-tion becomes almost automatic in the livries-becomes almost automatic in the livries-becomes almost automatic in the liv-ing man; and thus alone the faultless in-stinct of his art is comprehensible. And thus one water-color print by Hokusai or Hieroshige, sold for a cent, has more art in it than many a Western painting stored in historic galleries and valued at the price of a product of a province.

Feet Fashioned by Nature.

With the orthochromatic plates that we owe to Dr. Vogel and the chemists who have followed his lead, that falsity in color Feet Fashioned by Nature. And how beautiful are the feet of the people? Whether brown nude statuesque feet of laborers in straw sandals, or blue feet of swift runners in digitated stockings, or feet of children so pinkly pretty that they somehow suggest the transformation of flowers into flesh, or feet of girls in snowy tabi, having the cleft grace of the feet of beings mythological-faunesses, astyrasses. Never has the Japanese foot values ceases. It is accomplished by their bringing visual intensity and photographic intensity to harmony. A plate tinged with cyanin, a beautiful blue substance, has sur-Perhaps the supremely delightful im passing sensitiveness to orange rays; stained with erythrosin, a preparation red in color, it takes on in addition a high impressibility to yellow light. Armed with such a plate a estyresses. Never has the Japanese for ographer, with close app been subjected to that infamous style of foot-gear which has distorted and made hideous the feet of Occidentals; it has rehideous the feet of Occidentals; it has re-mained natural, supple, expensive, its every pose is comely, it has the symmetry of a Japanese character. Of every pair of Japanese wooden clogs, one makes in walking a slightly different sound from the other, as kring to krang, so that the echo of the walker's steps has an alternate rhythm of tones. On a pavement the sound obtains immense sonority; and a crowd will often intentionally fall into step, with the drollest conceivable result of drawling wooden noise.

PITTSBURG DISPATCH THE

CATCHING SUNBEAMS

The Science of Photography on the

Verge of Great Development.

Conquests of the Sky and Its Alliance

With the Printing Press.

THE UTILITY OF FUGITIVE DYES

(WAITTEN FOR THE DISPATCE.)

the quality of a thing he works with he simply casts it aside and thinks no more

about it. To an inventive mind the defect

may suggest a new use for which the thing, faulty in its first application, may be ex-

actly fit; and the new use may be much more important than the old one. When

dyes from coal tar, oils, and Peruvian bark were first made they had a provoking way of fading out of their fabrics in a few days.

or even in a few hours. Usually, too, the

more brilliant the tints the more fugitive

they were. That defect has, in large meas-

ure, been overcome, but before it yielded to

the resources of the laboratory a remarkable

series of experiments took place. It was in 1873 that Dr. H. W. Vogel, of

Berlin, observed that certain photographic

plates of his had much more than ordinary

sensitiveness to rays of green light. Search-

ing for the reason he noticed that the plates

were of somewhat reddish color. Could it

be possible that the mere accident of color

had conferred a new quality of sensitive-ness upon the films? He determined to

put the question to the test of experiment

forthwith, and at once procured some chino-

line and pyrodine dyes-red, violet and blue

-beautiful in tint, but fleeting and worth-

less. As he looked on these fine colors his

reflections did not take the direction of seek-

ing some method of making them enduring.

Bad in One Way Good in Another.

very bad when we wish to give color to a

cloth, but, after all, it only means extreme

sensitiveness to light, and that may be a

very valuable peculiarity. Indeed, it is just such a property which gives the com-

pounds of silver their importance in photo-graphy. And a noteworthy point about

these dyes is that they are impressible by the red and yellow rays which scarcely affect the silver salts at all. Perhaps if they were applied to a photographic plate they would make it sensitive in a new and most meeting ways

most useful way. Acting on those ideas, Dr. Vogel began a course of experiments which issued in his giving photography a fidelity to nature which it had never before enjoyed. To his

which it had never before enjoyed. To his delight he found that many fugitive dvess entered into chemical combinations with the salts of silver, conferring npon his films their own peculiar susceptibility to certain rays of light. Anybody who has ever de-veloped au ordinary photographic negative knows that the only light safe to employ for the purpose is what little sifts its way themsel nemes of red or canary glass he

through panes of red or canary glass, be-cause red or yellow rays have no influence

whatever on the plate's silver coating. Hence arises a serious want of truth in the

picture; a red rose or a red gown comes out as if black, and so does a yellow aster or a

Photos of Many Colored Flowers.

sch to truth

Thought he, this evanscence is certainly

ray.

A Property of Gelatine.

A substance much easier to use and pos

When an ordinary man finds a defect in

SUNDAY, FEBRUARY 7. 1892.

are made visible and palpable in the cam-era, the question suggests itself, why may not the broad, blank interval between light and sound be spanned in the same way? It would be hardly more surprising than the process by which a bar of warmed iron paints its portrait in a dark room, or a chemical ray registers itself beyond the verge of visible color sent forth by incan-descent metal. Just here it is worth re-membering how mechanical pressure may directly produce visible chemical change. Where a stylus has sharply indented a bit of silvered paper an image can be developed exactly such as light itself might have im-printed.

printed.

The master problem of photography is the seizure of color as well as of form in the camera. In approaching this problem experimenters have availed themselves of the sensitiveness of various dyes to red, green, and violet rays. Although six or seven leading distinctions of color can be discrimi-nated by the eye, it is held that red, green and violet underlie them all. In this process of helicohromy, as it is termed, three plates are exposed, each of which has been sensi-tized for one of the elemental colors. Having obtained positives of corresponding tints, their images are superposed on a sorcen, producing a picture with colors much re-sembling those of nature. The Question of Permanency. CORRESPONDENCE OF THE DISPATCH.1 PARIS, Jan. 28 .- "The greatest funeral since Victor Hugo's," was what all Paris said when on December 11 it followed to the grave the remains of its late "king," Monsieur Alphaud, the man who in the last 37 years has transformed the city, until by general consent it is the most beautiful in the world. Paris was his kingdom. He gave her his life. "For 37 years," declared one of his eulogists, "he worked without The Question of Permanency.

By an ingenious application of methods similar to those of enromolithogra-phy, an artist can produce permatent pos-itives of great beauty. That is certainly a roundabout way of making the rainbow paint itself, but no other attempt is either to satisfuctory or so promising. Thus it losing a day, to increase the beautifulness and beauty of the city." In return she became his obedient mistress. She promoted him until he held in his hand all departments of public works. so satisfactory or so promising. Thus it would seem that the germs of success in Streets, parks, squares and gardens were under his control. He decided where they catching color, as well as form, in the cam-era may lie in the same gift from Dr. Vogel, should be made, how they should be decwhich was made the message of light from the heavens fuller and mere legible, orated, when they should be cleaned. He from the heavens fuller and mere legible, and given new trutn and beauty to every photographic transcript from mature. When certain German chemists sought a few years ago to dye some yards of silk and woolen cloth with artificial colors, was it not a piece of rare good fortune that they failed. In its early days photographic printing was restricted to saw and costly chemical methods. A negative, as now in ordinary portraiture, imprinted its positive, and had to take its course through a series of toning, fixing and cleaning bashs. Was there not some feasible way by which light could give a picture in relief for use in a common print-ing press, where it could impressitself as speedily as type and in ik both cheap and permanent. Niepce's process, one of the very first in photographic art, zwe a hint as to how the task might be accomplished. Its plates were coated with bitumen, and that was rendered insoluble by the solar ray. looked after the lighting of the city. He controlled the sewers and water works. He was the final authority on all matters of municipal architecture. He was the projector and executor of the numerous historic and artistic undertakings which add to the interest and beauty of Paris. Nearly 6,000 men were in his service. His word was their law, and, most remarkable, it was a law honored and loved by all.

One Secret of His Power.

He was allowed to keep his position be-cause all the rest of the Parisian world was embrolled by exciting politics or by war and was glad enough to find somebody who would take care of the city without mixing with the general turmoil. Born at Grenobi-

Under His Control.

A substance much easier to use and po-sessed of the same property was found to be the very gelatine to which in other appli-cations photography is so much indebted. Combined with bichromate of potash a luminous beam renders it insoluble in water, upon which simple fact turns a wide variety liminous beam renders it insoluble in water, upon which simple fact turns a wide variety of photo-mechanical processes. These in their last refinements give us reproductions with all the mezzotht's delicacy of tone. In the simplest processes a ketch in pen and ink, or a line engraving, is placed face downward upon a sheet of sensitized gela-tine. Afters few minutes' action of sun-light the gelatine can be washed out of every part of the film protected from the solar beam by the black lines. By stereotypy or electrotypy the gelatine used as a mold yields a relief plate in motal which can be printed from in an ordinary press. In another process the unhardened gelatine is to cover a plate of zine or copper with a film of gelatine or other similar material. After the lines of its picture. At all points unpro-tected by the film the plate is then etched or bitten in by an acid bath. A recent adaptation of the sand blast has produced exceedingly god work on such a plate. The sand blast is preferable to the action of an acid, in that if does not burrow at the sides of the thin walls beneath the lines of a picture. The Half-Tone Processes.

An Unerouned King.

n Southeastern France in 1817, he was edu-

in Southeastern France in 1817, he was edu-cated at the Ecole Polytechnique and the Ecole des Ponts et Chaussees. When Napo-leon III, and Baron Haussmann decided that Paris should be transformed, they worked out an antoitous plan, and Baron Haussmann called M. Alphaud to Paris as director of streets and parks. The task which M. Alphaud to Paris as director of streets and parks. The task which M. Alphaud to ramped faults of the middle ages, with cramped streets, san light, sans air. To accomplish it he must tear down the city, relay and re-build it, and all without seriously inter-rupting traffic. He put himself to the work with tremendons energy. From 1854 to 1871, the end of the empire, be conducted the Bois de Boulogne and the Bois de Vincennes, those beautiful parks to the west and east of the city, into either of which all Paris can pour itself in a half hour at a cost of 3 or 4 sous. Within the city The simplest of these processes. The simplest of these processes renders only such lines as those of an architect's plan of a line engraving or of a pen-and-ink sketch. How can the difficulty of express-ing half tone, of graduated shadow, be over-come? Usually by interposing between the gelatine and the picture to be copied a net-erch of fine lines ruled closely together work of fine lines ruled closely together, with the result that, if inspection be not too close, a faithful transcript in dots is con-veyed to the plate. The half-tone process devised by Mr. F. E. Ives, of Philadelphia, follows an entirely different principle in a very incomions way. From a sciating relief

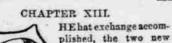


Author of "Innocents Abroad," "Tom Sawyer," "Huckleberry Finn,"

Etc., Etc.

STNOPSIS OF PREVIOUS CHAPTERS.

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friends started to walk back leisurely to the boarding house. Barrow's mind was full of curiosity about this young fellow. He said: to the Rocky Mountains?

"No."

are popular; popularity comes easy in first case, but, when the other thing comes, our friends are pretty likely to turn against

Tracy's noble theories and high purposes were beginning to feel pretty damp and clammy. He wondered if by any possi-bility he had made a mistake in throwing wis mind was full of uriosity about this roung fellow. He said: "You've never been be cast it out of his mind, and resolved to go ahead resolutely along the course he had mapped out for himself. Extracts from his diary:

"You've never been out on the plains?" "Na." "How long have you been in this coun-try?" "Only a few days." "You've never been in America before?" "No." "Then Barrow communed with himself. "Now what odd shapes the notions of ro-mantic people take. Here's a young fellow who's read in Eugland about cowboys and adventures on the plains. He comes here and buys a cowboy's suit. Thinks he can "perienced as he is. Now the minute he's caught in this poor little game, he's ashamed of it and ready to retire from it. It is that exchange that he has put up as an explanation. It's rather thin, too thin al-together. Well, he's young, never been anywhere, knows nothing about the world, "Thinks he count of some surgers to be an adventure son the plains it was the subamed of it and ready to retire from it. It is that exchange that he has put up as an explanation. It's rather thin, too thin al-together. Well, he's young, never been anywhere, knows nothing about the world, "This was anothing about the world," the is in a sourd which is seens to be source to you have a source you have a source you have have a source on the plains and the people have and tharry, and entits and this is an explanation. It's rather thin, too thin al-together. Well, he's young, never been anywhere, knows nothing about the world."



dark blue which dominates in popular costume, rules also in the color of shop draperies, though there is a thin sprinkling of black and white and brighter blue and wine color also (no greens or yellows). You nust note that the frocks and robes of the passing people not only harmonize marvel-ously with the draperies, but are likewise, to some extent, lettered with the same letter

English Letters for Jap Writing

No arabesques ever invented could pro-duce so exquisite an effect; these ideographs so modified for decorative purposes, have a grace and speaking symmetry of lines, which no design without a positive mean-ing could ever give. As they appear on the back of a workman's frock, pure white on dark blue, and large enough to be read at a very considerable distance (indicating some guild or company of which the wearer is a member or employe), they make the coarse material seem splendid as the attire of a prince. And, finalit, there will come to you, sud-

denly as a revelation, the conviction that most of the auszing picturesqueness of these Japanese streets is simply due to the these Japanese streets is simply due to the profusion of Japanese characters in white, black, blue, crimson or gold, decorating everything—even surfaces of door posts and lintels and paper screens. Then, perhaps, for one moment you will imagine the effect of English lettering substituted for these magical characters; and the idea will give to all your asthetic sense, a strangely brutal shock, and you will become, at once and forever, as I have become, a sworn enemy of the Romaji-Kai-that Japanese society founded for the supremely ugly purpose of introducing the use of English lettters in

writing Japanese. An ideograph does not make upon the Japanese brain any impression similar to that created in the Occidental brain by a letter or combination of letters-dull, inanimated symbols of vocal sounds. To the Japanese brain an ideograph is a vivid picture; it lives; it speaks; it gesticulates. And the whole space of a Japanese street is full of such living characters-figures that cry out to the eyes-words that smile or grimace like physiognomies.

Beauty of the Japanese Letters

What such lettering is, compared with our own lifeless types, can be understood only by those who have lived in the further East. For even the printed characters of Japanese or Chinese imported texts give no suggestion of the possible beauty of the same characters as modified for decorative time you dare to look something obliges you inscriptions, for soulptural use, or for the commonest advertising purposes. No rigid convention fetters the fancy of the cali-grapher or designer; each strives to make his characters more beautiful than any the voltage to look concerning outges you to buy it—unless, as may often happen, the smilling vendor invites your inspection of so many varieties of one article, each specially and all unspeakably desirable, that you cannot choose, and depart out of others-and generations upon generations of artists have been toiling from time imme-morial with like emulation-so that through ecaturies and centuries of tireless effort and wondrous patience of study, the primitive nothing but a temptation to commit bank-

kindly, curious looks and pleasant smiles is to make one think of Fairyland. Note well-this observation is almost hackneyed many and many another writer describin the sensations of the first day in Japan ha snoken of the land as Fairyland, and of the people as fairy folk. But there is a psycho-logical reason for this singular unanimity in this choice of terms to describe the in pression-in this use of words signifying conditions and creatures supernatural and ideal. To find oneselt auddenly in a world where everything is upon a smaller and daintier plan than with us-a world o

lesser and kindlier beings, all smiling a you and seeming to wish you well-a world where movement is slow, soft, gentle-is world where sky, land, life, and all things beheld-must indeed realize, to any im sgination nourished with English folklore, the old happy dream of a world of elves. Wherever else I have seen a period of change from a romantic past to a practica

present-as in Louisiana, as in the West Indies-I have seen the decay of things beautiful and the ugliness of things new. What of these I may yet see in Japan I know not; but here in these streets the old and the new mingle so marvelously well that the one seems only to set off the other. An electric bell in some tea house, with a Japanese inscription beside the ivory but-

Tera e yuke! I have been obliged to return to the European hotel, not because of the noon meal, as I really begrudge myself the time necessary to eat it, but be-cause I cannot make Cha understand that I want to visit a Buddhist temple. Now Cha understands; my landlord has uttered the magical words, Tera e yuke!

A Peak of White in a Sea of Bine.

ite, so spiritually white. that but for its im-

Getting Even With Each Other,

A Peak of White in a Sea of Bine. I turn a moment to look back through the glorious light. Sea and sky mingle in the same beautiful pale clear blue. Below me the vast billowing of bluish roofs reaches to the verge of the deep green hills surround-ing the city on two sides. And in the back-ground, beyond the wooden green hills, rise high servated cool-blue mountains; and enormously loity above the range of them enormously lofty above the range of them towers an apparition indescribably lovely, ton; a shop containing sewing machines next to the shop of a merchant of Buddhist images; the establishment of a photographer one solitary snowy cone, so filmily exquis

of effect, can take a picture of a varigated flower bed, of autumn woods, of a lady in richly colored costume. Despite the plate's improvement blue and violet rays may continue to impress it in an undue degree. To remedy that a screen of glass or film of gelatine, stained yellow, cut off the over-active rays during part of the exposure; then

mass of yellow foliage.

for a moment the screen or film is with-drawn and the blue and violet rays are permitted to imprint themselves. To the dyes for which we are indebted to

Dr. Vogel many additions have been made year by year. The garden as well as the laboratory has been laid under contribu-tion, chiefly for chlorophyll, the green col-oring matter of leaves. Solutions of it derived from the plantain, blue myrtle and many other plants have been added to the photographic film with results always interesting, it only rarely of practical value.

Taking Pictures by Gaslight.

Orthochromy has shared in the impetus received by every branch of photography since the introduction of bromide-gelatine plates, and were orthochromatic plates as quickly impressed and as easily developed as common plates their use would be much more creared. Because they are acted upon as common plates their use would be much more general. Because they are acted upon by the red and yellow rays of gaslight and oillight they can be employed at night, and although the exposure must be longer than by daylight it is by no means tedions. Orthochromatic plates have especial value in the reproduction of oil paintings, which

they render into monochrome with a per-fection unimaginable in the days before silver of salts and dyes were brought together. Beyond every other achievement of the

camera must rank the marvels it reveals when directed to the orbs of heaven, and in this noble field of work the new plates enlarge the instrument's powers in a very won derful way. Every chemical element, when it reaches glowing heat, gives out light of characteristic color. When we have once seen the yellow flame of sodium, or the red seen the yellow fiame of sodium, or the red beams shot forth by strontium, we can al-ways detect the presence of these substances in a pyrotechnic display. It is by an ex-tension of this principle that the story of the spectroscope is spelled out. The pio-neer in this remarkable field of research was Dr. Henry Draper, of New York, who first secured a well-defined star spectrum in hrst secured a well-denned star spectrum in the camera. Since his death in 1882, and through the liberal endowment of Mrs. Draper, his work has been continued by Prof. E. C. Pickering of the Harvard Observatory.

A New Means of Exploration Photographs of stellar spectra are now taken in Peru as well as at Cambridge, and by staining the plates with erythrosin the impressions include those of the green and yellow rays which exert no action on an orveriow rays which exert no action on an or-dinary film. Varied as these experiments are, they are far from exhausting the pos-sibilities of the camera. Beyond the violet rays of the spectrum's rainbow extend vi-brations which, though invisible to the eye, here since the years early days of photos

brations which, though invisible to the eye, have since the very early days of photog-raphy been caught and detained on its plates. At the other end of the spectrum, beyond the red, are other invisible radia-tions, detected easily by a delicate ther-mometer, which until 1887 eluded capture. In that year. Captain Abney secured an image from them on a bromide of silver plate. And suddenly a singular sensation comes upon me as I stand before the weirdly sculptured portais-a sensation of dream and doubt. I know that less than a season ago the faith of the Buddha existed for me

He maintains that here, and in the use o plates sensitive to ultra-violet rays, astron-omers have a new means of exploration, with which they are free to enter upon a fresh chain of discoveries. To the stars already known it is within their power to add a new class-stars newly born or newly dead, whose temperatures rise above the range of visibility or fall below it. Thus does the science of to-day probe the utter-most recesses of space and compel into our view one order of heavenly bodies, after an-other. If the task of bringing them out of their concealment cannot be accomplished directly, then the astronomer presses medi-ation and artifice into his service. plates sensitive to ultra-violet rays, astroning thus swiftly traversed, as if by supering thus swirtly traversed, as it by super-natural power, the space of 20 centuries, there comes to me in a new, strange way the knowledge of my own ghostliness, and a thrill, exquisite, indescribable, as though some viewless, infinite, tender Presence were wrapping me about-the Soul of the East. LAPCADIO HEARN. "You have so much address I can hardly be expected to compete with you," said the

Similarity of Light and Sound, When we consider how ingeniously forms f motion which affect none of our senses

tollows an entirely different principle in a very ingenious way. From a grelatine relief plate he takes a cast in plaster. An inked pad, or film, of elastic V-shaped lines or dots is pressed against the plaster until the lines or dots are completely flattened out where they meet the highest parts of the cast. When the cast is removed there remains im-pressed upon it an ink picture having the appearance of a photograph, but made up of sharply defined lines and dots, graduated in size like those of a wood engraving. That can be photo-engraved as if it were a draw-ing, or transferred to kinc or copper and etched into relief. The finest issue of the marriage of the camera with the printing press is the photo-gravure. Its delicate grain is derived from the carbon, blended with the gelatine of its plate. To confer ink-holding power upon the copper it is dusted while hot with finely powdered resin. It is probable that in the processes still further simplified, which will mean to the amateur almost as yaluable a gift as that of the gelatino-bromide plate. *Gravers* Its.

The Half-Tone Processes.

CONSOLATION FOR 'OPKINS.

The Chaplain Wasn't at Hand, So Orderly Took Up His Role. IWRITTEN FOR THE DISPATCH.

Po' 'Onkins was sick in a hospital. In the morning the Orderly said to the Chaplain: "Sir, po' 'Opkins is dead."

"Why did you not call me, I should like to have given him a few words of consolation?' "I did not think it worth while, so I con-

oles 'im myself."

"What did you say to him?" "What did you say to him?" "''Opkins,' says I, 'you're mortal sick.' "Yes,' says 'e. ''Opkins,' says I, 'you can't'ope to get well.' "I don't suppose I can,' says 'e. "''Opkins,' says I, you're got to die." "'I suppose so,' says 'e. "''Opkins,' says I, 'you can't 'ope to go

o heaven.' "'I don't suppose I can,' says 'e. ""'Opkins,' says I, 'you'll go to the other

place." "'I suppose so,' says 'e. "''Opkins,' says I, 'you ought to feel wery grateful that you're purwided forthat you 'ave somever to go to,' and 'e turned his face to the wall, and went 'ome appy.

A NOVEL CALL BELL

It Is Made of Silver and Two Little Mon keys Make the Nolse. Among the novelties in a New York resi-

dence is a combination call bell made of silver. There are really two bells, with



The Obliging Monkeys.

hinged monkeys above them. When the pell is shaken these monkeys bob up and down, striking the bells. They are in har-mony and the music is very pretty.

PITE-All dis stopped free by Dr. Kline's Great Nerve Restorer. So dis after first day's use. Mar-relous cures. Treatise and # 00 trial bottle free to Pit cases. Dr. Kline, 901 Arch st., Phila., Pa. 80

the west and east of the city, into either of which all Paris can pour itself in a half hour at a cost of 3 or 4 sous. Within the city limits he utilized waste lands to make the charming parks of Monceau, Montsourisand Buttes-Chaumont, and he constructed some of the finest of the great boulevards and avenues. The works were not only splendid feats of engineering, they were works of art. Says one of M. Alphaud's admirers: "It required a poet to conceive them. He handled not rhymes but trees, not syllables bat flowers. His epics were great parks, his sonnets little squares." In this period M. Alphaud established a fine system of nurseries and hot-houses, from which the city is supplied with trees and the parks and squares are ornamented the year around with a profusion of flowers and shrubbery. All Paris Under His Control.

All Paris Under His Control.

In 1871 the empire fell, but M. Alphaud had become an indispensable man. Now he was made director of public works. By 1875 everything pertaining to above-ground Paris was in his hands. Three years later, on the death of the engineer of water works and sewers, under-ground Paris was addeu.

All the changes made by M. Alphaud have been handled with a profound regard for historic associations. But it has not been the rebuilding of Paris alone which has historic association. But the new for the main the rebuilding of Paris alone which has made M. Alphand the idol of the Parisian populace. M. Alphaud was the prince of fete and exposition makers. The success of the exposition so 1 1807 and 1878 was largely credited to him. His orowning piece of exposition making as well as the crowning work of his life, was the exposition of 1889. M. Alphaud was 70 years old in 1677. The French law requires that its servants retire at that age. The director went to the Minister, "that if you conform to the rules you will compel me to retire; that is, you will would be death to me. Besides I want to manage the Exposition." The Minister broke the rules and the Exposition to the delight not only of France, but of the world. Why He Succeeded So Well. Why fie Succeeded So Well.

The faculty for directing a great num-ber of things at once characterized all his work. His tact in handling men was rare, but his appearance no doubt contrib-uted to his power. He was tall and broadshouldered, with pieroing eyes and a kindiy face almost benignant indeed of late years, because of his white beard. The knowledge of the disinterestedness of his service made all who came in contact with him more obe-dient to his wishes. No one believed that M. Alphaud encouraged "jobs" or enriched himself from the public purse. No one ever hinted that he made more money from his office than the \$5,000 he received yearly as

Salary. Nor did he ever seek power other than that of his office. He had his honors, how-ever. After the Exposition of 1899 he was given the grand cross of the Legion of Honor-the only engineer to whom it was man was rather especially fond of him, but you know that when a man loses his job and loses his ability to support himself, and ever. After the Exposition of 1889 he was given the grand cross of the Legion of Honor-the only engineer to whom it was ever given. And after the death of Baron Haussmann he was made a member of the Academy of Fine Aris. The greatest public recognition he ever received was the mag-nificent funeral the city of Paris gave him. And who will take M. Aiphaud's placef Nobody probably. He was an absolute mon-arch, and he was jealous to a childish degree of any interforence with his power. Those who worked under him were expected to obey implicitly. He would not divide power or even attempt to fit men to work inde-pendently in the departments. His kingdom inlist opieces without bim. He has estab-lished no dynasty. It is as well that he did not. One-man power does not efficit without abuses. They crept into M. Alphaud's ad-ministration, and the municipality loved him too well to attempt reform while he pived. The press and most thoughtful peo-put were silent because it was M. Alphaud. But were silent because it was M. Alphaud. to pay his way as he goes, it makes a great difference in the way people look at him and feel about him." "Is that so? Is it so?" Barrow looked at Tracy in a puzzled way. "Why, of course it's so. Wouldn't you know that naturally? Don't you know that the wounded deer is always attacked and killed by its companions and friends?" Tracy said to himself, while a chilly and Tracy said to himself, while a chilly and boding discomfort spread itself through his system, "in a republic of deer and men, where all are free and equal, misfortune is a crime, and the prosperous gore the un-fortunate to death." Then he said aloud. "Here in the boarding house, if one would have friends and be popular instead of hav-ing the cold shoulder turned upon him, he must he avone-ava?" must be prosperous." "Yes," Barrow said, "that is so. It's their nature. They do turn against Brady, now that he is unfortunate, and they don't

He Could Be of Some Use. Pearson's Weekly.]

Theatrical Manager-Hie, there! What are you doing with that pistol? Disconsolate Lover-Going to kill my-

Theatrical Manager-Hold on a minute If you're bound to de it won't you be good enough to leave a hote saying you did it for love of Miss Starr, our leading lady? It's a dull season and every little helps.

The in England, and which seems to be somehow necessary to me. I get along very well without the luxury and the wealth and the sort of society I've been accustomed io, but I do miss the respect, and can't seem to get reconciled to the absence of it. There is deforence here, but it doesn't fall to my share. It is lavished on two men. One of them is a portie man of middle are when here mywhere, knows nothing about the world, sentimental, no doubt. Perhaps it was the natural thing for him to do, but it was a most singular choice, curious freak, altogether.

gether." Both men were busy with their thoughts for a time; then Tracy heaved a sigh and

"Mr. Barrow, the case of that young fel-

TRA

Baugu

His Thoughts Were Fur Away.

share. It is lavished on two men. One of them is a portly man of middle age, who is a retired plumber. Everybody is pleased to have that man's notice. He's full of pomp and circumstance and self-complacency and bad grammar, and at the table he is Sir Oracle, and when he opens his mouth not any dog in the ken-nel hards. The other person is a policeman at the Capitol building. He represents the Government. The deference paid to these two men is not so very far short of that which is paid to an earl in England, though the method of it differs. Not so much court-liness, but the deference is all there. Yes, and there is obsequiousness, too. It does rather look as if in the republic, where all are free and equal, prosperity and position "Mr. Barrow, the case of that young lef-low troubles me." "You mean Nat Brady?" "Yes, Brady, or Baxter, or whatever it was. The old landlord called him several different names." "Oh, yes, he has been very liberal with names for Brady, since Brady fell into. arrears for his board. Well, that's one of his excerner, the old man thinks he's great

his sarcasms; the old man thinks he's great on earcasm. Well, what is Brady's difficulty? What is Brady? Who is he? "Brady is a tinner. He's a young journeyare free and equal, prosperity and position constitute rank.

The days drifted by, and they grew ever more dreary. For Barrow's efforts to fud work for Tracy were unavailing. Always the first question asked was: "What union do you belong to?" Tracy was obliged to reply that he didn't belong to any trade man tinner who was getting along all right till he fell sick and lost his job. He was very popular before he lost his job; every-body in the house liked Brady. The old

union. "Very wetl, then, it is impossible to em ploy you. My men wouldn't stay with me if I should employ a "scab" or 'rat" or

if I should employ a "scab" or "Tat" or whatever the phrase was. "Finally, Tracy had a happy thought He said: "Why, the thing for me to do, of course, is to join a trade union." "Yes," Barrow said, "that is the thing for you to do if you can." "If I can? Is it difficult?" "Well, yes," Barrow said, "It's some-times difficult--in fact, very difficult. But to non ity and of course it will be heat to

you can try, and of course it will be best to

Therefore Tracy tried, but he did not suc-Therefore Tracy tried, but he did not suc-ceed. He was refused admission with a good deal of promptness, and was advised to go back home, where he belonged, not come here taking honest men's bread out of their mouths. Tracy began to realize that the situation was desperate, and the thought made him cold to the marrow. He said to himself: "So there is an aristocracy of mere. position here, and an aristocracy of pro-perity, and apparently there is also an aristocracy of the ins as opposed to the outs, and I am with the outs. So the ranks

grow daily here. Plainly there are all kinds of castes here. and only one that I belong to, the out-casts."

But he couldn't even smile at his small joke, although he was obliged to confess that he had a rather good opinion of it. He was feeling so defeated and miserable by this time that he could no longer look with philosophical complacency on the horseplay of the young fellows in the upper rooms at night. At first it had been pleasant to see them unbend and have a good time after having so well earned it by the labors of the day, but now it all rasped upon his feelings and his dignity. He lost patience with the

and his dignity. He lost patience with the spectacle. When they were feeling good they shouted, they scuffled, they sang sougs, they romped about the place like cattle, and they generally wound up with a pillow fight, in which they banged each other over the head and threw the pillows in all direc-tions, and every now and then he got a buf-fet himself; and they were always inviting him to join in. They called him "Johnny Bull," and invited him with excessive familiarity to take a hand. At first he had endured all this with good nature, but latterly he had shown by his

nature, but latterly he had shown by his manner that it was distinctly distanteful to

new that he is unfortunate, and they don't like him as well as they did before; but it inn't because of any lack in Brady-he's just as he was betore, has the same nature and the same impulses, but they-well Brady is a thorn in their consciences, you see. They know they ought to help him and they're too stingy to do it, and they're ought also to hate themselves on that ac-count, but instead of that they hate Brady because he makes them ashamed of them selves. I say that's human nature; that occurs everywhere; this boarding house is merely the world in little; it's the case all over-they're all alike. In prosperity we

memorially familiar outline one would surely deem it a shape of cloud. Invisible its base remains, being the same delicious tint as the Everything Japanese Is Tasty. Nothing, however odd, is repulsive or ngly, nothing. All that is Japanese is del-icate, tasty-even a pair of common wooden chopsticks in a band with a delightful litsky; only above the eternal snow-line its dreamy cone appears, seeming to hang, the ghost of a peak, between the luminous land and the luminous heaven-the sacred and peerless mountain, Fuji-yama.

tle drawing upon it; even a package o toothpicks of cherry wood, bound with paper wrapper elegantly lettered in paper wrapper elegantly lettered in three different colors; even the little sky-blue towel, with designs of flying sparrows upon it, which the jinrikisha man uses to mop his face. The bank bills, the commonest copper coins, are things of beauty. Even the piece of plaited colored string used by ago the faith of the Buddha existed for me in records only, in texts translated out of old dead tongues, as a something astronomi-cally remote from my own existence. And now, with the sudden consciousness of havthe shopkeeper in tying up your last pur chase is a pretty curiosity. Curiosities and

dminty objects bewilder you by their very multitude; on either side of you, wherever

heside the establishment of a manufacturer

of sandals-these display no discord of pos

tion.

letter to the envelope. "Now, don't get excited," replied the envelope, "because you know you can't con-tain yourself."



A PAINTER, FROM THE ORIGINAL DRAWING BY HOKUSAL