## The World of Sport.

of the Baltimore American leaguers, established the individual batting record of this season (or members the nday afternoon. Detroit, Michael in the game pate on six occasions, and upon each made a decided impres-

sion upon Mr. Miller, who was per-

forming in the Michiganders' box. Twice he ripped off little singles, twice he drove out smoking two baggers, and twice red hot three basers caused the unfortunate Mr. Miller to close his eyes and shudder. This is a total of twelve bases and has not been excelled since the time when Ed. Delehanty made his great record of four homers and a single off Adonis Terry. Since then twelve bases has been the maximum gathered in a game, Me-Creery, now with Brooklyn, made three homers in one game while playing with Louisville, and Red Beauof Pittsburg, caught three triples, a double and single at Phila-

### Base Ball. YESTERDAY'S GAMES.

delphia a couple of seasons ago.

National League.

At Boston-Pittsburg ...... 200002000-4 7
Boston ...... 02500200\*-9 11 Batteries-Poole and Zimmer; Willis and Kittridge. Umpire-Dwyer.

At Brooklyn-Batteries Hughes and Kling; Kennedy, Kitson and McGuire. Umpire-O'Day.

Taylor and Bowerman, Umpire-Emslie. At Philadelphia-Cincinnati ...... 0000000000-0 4

American League.

R. H. 1

Farland. Umpire-Cunninghum.

Cleveland ....... 1 0 0 0 0 0 0 0 1- 2 Oston .......... 0 0 2 0 0 1 0 1 '- 4 12 3 Batteries-Dowling and Wood; Young and Schreckengest. Umpire-Manassau. At Philadelphia-

Batteries-Guiffith and Sullivan; Platt and Powere. Umpire-Cantillon. 

fmon. Empires-Sheridan and Connolly. 

Rothester, 6: Hartford, 3. Peronto, 9; Providence, 1, Montreal, 4; Syracuse, 1, Buffalo, 3; Worcester, 1,

College Games. At New Haven-Harvard, S; Yale, 0.

THE Chicago Sunday Record Herald Manager Tom Loftus, of Windy City National leaguers gives the following reasons for his team's poor showing:

stion is often asked, "What is th matter with the orphans?" If the question is propounded facetiously there are plenty of facetious replies, but if i is asked seriously, logical reasons are at hand explain the club's standing in the pennan

First and most important comes the matte of injured players, Scarcely has a game been played this season with our regular team in the field. This is a discouraging handicap to a club which is none too strong at its best, ea and is trying out new men to fill the vacancies But the fans overlook the fact that we have been crippled from the very start of the chain pionship season. Had we started with our regular team in the field and won zeven or eight of the first twelve games played, and had the in aries then happened, the Chicago followers of base ball would have noticed the difference i our standard and would have sympathized with us in our hard luck. But because we secured : poor start and fell into a losing streak we are called "dubs," 'has-beens" and all other expressive terms in a disgusted fan's vocabu-

This is one of a series of interesting weekly articles which appear in the Record-Herald from the pens of base ball managers or star players. John alias "Muggsy" McGraw contributed a paper on the requirements of an Al ball player and Napoleon Lajole had in several terse comments upon the proper manner in which to dent one's trademark upon the clean white horse hide. Stimmel, the lengthy and speedy

young man who pitched for Allentown last season and later went to Cincin nati, is now twirling for Indianapolis in the Western association. Saturday he shut out Toledo with four hits and fanned out an even dozen men. Winters, the young Gettysburg col-

lege pitcher, who was signed by Jimmy Collins for the Boston American leaguers, is making good with a vengeance, having won all three games he has pitched since joining professional Louie Bierbauer, old and reliable, is

still in the game, frisking gally about second base for the Hartford Eastern

Dan Kervin is still with Buffalo, and is doing a stunt in the box regularly

Jack Walters, who was a favorite here in the old Eastern league days, is now playing right field for Providence. He is fielding strongly, batting hard and as fast of foot on the bases as in

Jack Toft, who caught for Walter Burnham's team here last summer, has made good in the Eastern league, where he is now doing a backstop specialty for Toronto. He fields his position well and moreover is doing hard and timely

batting for the Canucks. Big Bill" Massey, who when a member of Mart Swift's State leaguers was the idol of the Scranton popular now holding down first base for Hartford and retains his evident fondness or ripping off large julcy drives to the

ut garden Edward Delehanty, the Philadelphia ptain, is batting with terrific force late, and is giving Emmett Heidrick agner and the other big sluggers a at race for the premier batting hon-With Heidrick, Delchanty, Wag-

IKE DONLIN, the big outfielder [ner, Wolverton, Burkett and other ] sluggers of the old-time type standing at the top of the list it begins to look as though the era of the exponents of the new school of batting were begin-ning to fall behind in the procession. Willie Kule, however, still manages to hold up his end, and wee Willie is becoming somewhat of a slugger himself

and long home run smashes and two ind three-base smashes are far more of an occurrence with him than they vere in the days when his clever buntng and work-the-pitcher game kept him in the lead of the National league hitters. Skopec, the left-handed youngster

who twirls for the Chicago White Stockings, leads the team at the bat with an average of .333, which, strange o say, is the same as the figures opposite the name of "Topsy" Hartsel, who eads the Chicago National leaguers. Hartman and McFarland, with .315 and 407, are the only other White Stocks above the .300 mark, and Green's .329 nakes him the only other Orphan above the triple century mark.

The record batting of the year oc-

turred Saturday at Rochester, when in the second game of a double-header with Worcester, the home team scored twenty-seven runs and thirty hits in six innings. They batted Griffin and Magee out of the box and Zeke Wrigley had to come in from second base and essay his luck in the box. Rochester also won the first game, fourteen hits in eight innings, and this, therefore, gave a total of forty-four hits for fourteen innings.

Shortstop Bean led with the bat, getting three safe ones out of four times up in the first game, and in the second making six hits in six times at bat Eight of his smashes were singles and one a double. Billy Lush caught three safe ones in three times up in this same awful game. His drives were a hits, the collection including a threepagger and two doubles, and Grey got three safeties. Conn was only up once, but then drove out a single, while Batteries-Newton and Bergen; Orth and Me. | Smith and Mattern each got two safeties and Dixon landed one.

There is joy in Philadelphia over the

signing of Hughey Jennings to cover first base, and there is no doubt that that move has greatly strengthened the team. Hughey has been assigned first base as his special pasture ground and Delchanty is delighted to again find himself in left field, where he displaces little Slagle. The latter's bat ting has been light, and it is therefore likely that he will be soon allowed to enter other fields. His fielding has been highly satisfactory, however, and some of the catches he has made are among the most spectacular ever seen on a base ball ground. Against pitchers atrifle less speedy the little fellow ought to prove a winner, and he would naterially strengthen a number of American league teams.

News, first baseman of the Chester club, has been sold to the Columbus O., team. He has a great record this season, having made seventy-eight hits in thirty-four games, numbering nineteen home runs in his collection of safeties. He is well remembered in this city, having played here last seawith Allentown. News is the heavily-built-individual who sent the ball over the center field fence in a Saturday afternoon game here by one of the longest drives ever soon on the ocal grounds.

Ralph Seybold, who has been on the Athletics' bench during the greater part of the season, replaced Geier, in right field, Monday, at Philadelphia, and celebrated the occasion by driving out a home run and three bagger. The Quaker City fans have loudly and persistently demanded this move and the big fellow's work Monday appeared to justify the assertion which has been made that his presence would greatly strengthen the team. There is no doubt that the ex-Richmond player is a natural batsman, and for a heavy man he is a swift fielder.

### Rowing.

THE CLOSING performance of the University crews which will repsent Yale and Harvard in the important event of Thursday's regatta lead irresistibly to a revival of the conclusion reached just before the famous race of 1900 and emphasized by that event itself-the conclusion that the boating mentors of the two institutions are pretty nearly a unit alike as to theory and practice. It was predicted some years ago that the time would arrive when practically identical systems and methods of rowing would prevail at these two institutions. Before the great race of last year it was remarked that the two crews were rowing practically the same stroke, with the result of the race hanging i balance governed alone by skill in the application of the cardinal principles of the stroke by an eight o power and endurance. The race itself probably the most exciting ever rowed between the two colleges-argued logically for the soundness of this proposition. The two eights did row strokes almost identical and with a skill which made the contest for three and a half miles hair-raising. The outcome of the race after the collapse of the Harvard stroke, Harding, vas, of course, the natural one and Yale took the victory because her shell was manned by an eight of more power and endurance than that of the young

oarsmen who represented Harvard. The situation of 1901 is unchanged. w, as in June, 1900, the stroke which is being pulled is practically a combination of the famous "Cook" stroke and improvements evolved by Harvard's head coach, E. C. Storrow. As explained by an expert the strokes liffer in these respects. At the catch Yale utilizes both shoulders and legs simultaneously and follows almost inwith the leg drive, Yale's slides begin to move at once: Harvard anchors the sweep and then slides. The difference in practice is a result of a difference in the theories of the respective coachers. Both are seekng to overcome the much-to-be-feared hitch or halt between strokes. Yale's theory seems to be founded on the belief that the effort to catch and pull should be made simultaneously to produce one long, smooth pull; Harworks on the theory that the atch, being highly important, should be cleanly and surely made before undertaking to pull the sweep through the water. These technical and expert

differences are not to be detected by the ordinary spectator. The long period of training through

varied but little from the course of last year. Harvard repeated her methods of 1899 and 1900. Between 200 and 300 candidates appeared carly in the year in the shape of members of various rowing clubs. A series of races was held and the process of climination was worked out. This year, however, the 'Varsity squad came out of the preliminary process earlier than

last year. The club races were finished nearly a month earlier, and the Varsity squad was chosen in early April. The further weeding out proes was continued rapidly until early 14. Kentucky, Tennessee. in May the probable make-up of the erew was well in hand. As a result, 16. Wisconsin, Minnesota. Harvard reached Gales Ferry with a 17. Illinois. set of oarsmen who had been rowing 18. Missouri

together for some time. Three veterans of last year's Har- 20, North Dakota, South Dakota. vard eight sit in this year's shell, Shue- 21. Kansas, Oklahoma, Indian Terri bruck, Hugh Bancroft and Bullard. At Yale, as usual, the rowing leaders | 22, Texas. contended against the disadvantage of | 23. Montana, Wyoming.

from scratch, with or without single pace, or in a handleap when a man must start from scratch. The winner must be a resident of the District or State in which he is con-

testing for a medal.

At the end of the season, October 15, 1901, the amateurs making or holding the dietrict records, according to the certificates accepted by the N. C. A., will be awarded the gold medals. The following are the districts:

1. Maine, New Hampshire, Vermont. 2. Massachusetts.

3. Rhode Island, Connecticut. 4. New York. 5. New Jersey. 6. Pennsylvania.

. Maryland.

8. Virginia, West Virginia, District of Columbia 9. North Carolina, South Carolina. 10. Georgia, Florida.

13. Indiana 15. Alabama, Mississippi, Louisiana.

19. Iowa, Nebraska.

PICTURE PUZZLE.



The prestidigitator makes the duck disappear. Can you find it?

fewer candidates than Harvard. About 75 men responded to Captain Blagden's call. As usual, there were several class crews and several class races, but 27. Nevada, New Mexico, Arizona. with a veteran nucleus of three men and the presence in college of several men of known rowing ability a 'Varsity squad was, by common consent, detached from the main body of candidates, and this squad changed in personnel only when particularly promising material developed among the other candidates. Coach Allen did not appear until May, and his arrival was followed by frequent changes in the first crew. full eights of considerable strength and vance of Harvard by nearly two weeks. Once on the river, it was supposed that Mr. Allen would stop the changes, but until the last week before the race changes were very frequent. Yale had the advantage of the services of two sets of men, each of whom had

shell. The last ten days before the race are being devoted to the polishing off process. Time rows have been somewhat nore frequent than by previous years, This is particularly true with the Harvard crew, it probably having been deided to be wise to give the men plenty of stiff work beforehand, so that the rying experience of an exhausted oar yould not be repeated.

Kunzig, Cameron and Blagden are the men of last year's victorious crew who sit in the Yale boat of 1901. On the water there is very little to choose between the two eights. Harvard's recovery is beautiful, and it is much cleaner than Yale's. The crimson oars are also splendidly together. The Yale shell, however, lacks the awkward hitch which has, up to this ime, characterized the Harvard craft Neither crew has thus far given promise of reaching to the high stanard of their predecessors of 1900, and unless water conditions are unusually favorable, the race, it is stated, will be slower than that of last year. As a general proposition it may be added that the two crews are about equal as to skill. Harvard seems to be more powerful, and the prediction would seem safe that the race will depend

### Bicycling.

largely upon a question of endurance.

A. McFARLAND, probably the best of all-around racing cyclists, has decided to discontinue sprin racing, and will hereafter essay to gain glory and dollars in the middle distance field. He has proven his ability as a sprinter by scoring over every good man in the country, while his win of the last six-day races shows him to possess great endurance. He is also the best handleap rider in the field. The Californian's advent in the game of following the motors will be watched with interest. His first race will be at Newark on Saturday with Arthur Ross, while on Monday he will contest with Nelson at Madison Square Garden. On June 29 he will figure in a twenty mile race at Boston against Michael and Linton; July 3, at Proviience, with Michael: July 4, at Philadelphia, against Michael and Pierce, It is the intention of the American Bicycle company to elevate and promote the sport of cycle racing by proper methods and proper men. With this end in view a large team of professional riders has been engaged, effort will also and an made to increase the interest in competition among amateurs. It has been finally decided to arrange the country twenty-eight districts, and four handsome gold medals will be offered in each district for the best competi-

The conditions are: 1. The rider must be mounted on a wheel made by the American Bicycle company. The race must be held under the

5 and 10 miles.

tion record made by amateurs at 1, 2,

sanction of the N. C. A. 3. It must be an open race, starting

25. Utah. 26. Washington, Oregon, Idaho.

28. California

FAMOUS WHEELMEN. Probably the most famous cyclist in the world today is Jimmy Michael, the midget cycling wonder, who for years has been acknowledged the fastest man behind the pacing machines. The championship of four countries, which really means the championship of the world, has been Michael's honor on a This made possible two number of occasions. Born in Wales Michael started riding in '94, winning continued his job as a butcher boy in order to take up cycling, and his wonderful speed at home gave him courage to visit England in '95, where he cap

Thus tured first honors in every event. During the year of '96 the diminutive cyclist was the champion of France, been given experience in the 'Varsity and after defeating all the crack riders came to America in the fall and scored notable victory over Starbuck at the Quill Club meet. Later in the year Michael lowered all orld's records from two to ten miles. and it might be said at this time tha

> as the Welsh Rarebit." At different times the figures from two to one hundred miles, both against time and in competition, have been credited to the name of Michael. Behind human pace in '97 Michael defeated Tom Linton an old-time rival, for the championship of the world. He also scored over Me Duffie, Lesna and Chase, who was considered the best middle-distance rider of England. Before the largest crowd that ever atended a bicycle race in Madison Square Garden, Michael lowered the colors of Frank Starbuck, and the litle fellow has the honor of hav ing defeated every rider in America who essays to follow the pacing machines. During '99 Michael, with a bank account of probably \$30,000 thought the horse racing game more suitable, and during the season mingled with the followers of the "sport of kings." The end of the year found his bank account somewhat depleted owing to his riding and betting on slow horses instead of on fast ones so that in 1900 he again took to the racing game. He met with excellent success last year, while this season, as a member of the Columbia team, he has already scored a couple of notable victories. He is prepared to meet any rider in the world in a paced race of from twenty to fifty miles.

no rider has ever held as many records

As an amateur, Johnnie Nelson, of 'hicago, repeatedly lowered records and gave promise of great ability when he would graduate to the professional ranks. That this promise has been fulfilled is proven by his extraordinary work of last year, when he won more races than any two riders in the busi-Nelson comes from Swedish parents, is twenty years of age, and is rather small in build. During the year of 1900 Nelson scored

the phenomenal record of thirty-eight victories out of a total of forty-six races, lowering the colors of every paced rider in America, excepting Elkes. At Bridgeport on July 4th, he beat the world's record from three to thirty miles, while later in the month, at Charles River Park, he was compelled to again lower records in order to defeat Michael's, which he did by the narrow margin of twenty yards On the coast in the spring Nelson lowered Major Taylor's one-mile competition record of 1:41 2-5 to 1:37 4-5. after the dusky rider's figures had withstood over five hundred paced races since '98. This season Nelson promises unusually well, and during the week beginning June 10th he defeated Champion on Monday night Tom Linton on Tuesday night, and Stinson on Wednesday night, a record without a parallel in cycle competition. Nelson rides a Cleveland in all his races and uses a 105 gear.

The best representative of France, so far as middle-distance racing is concerned, is now in America in the person of Edouard Taylore, better known as "French Taylore." This is his third invasion of America, and his record

Sizes 3 to 10 years.... Straw Hats-For Children, in They come in various colored straws and have light

JONAS LONG'S SONS.

**Boys' Clothing** 

You like to have the boys

look as nice as possible

keep them that way. Here's

done at The Big Store;

including white duck,

pique and crash. All

sizes.....

bands and taped seams.

silk ribbon band.....

Boys' Russian Blouse Suits made of wash fabrics in light and dark colors-all have white pique collars. For boys from 2 to 6 years 

Boys' Russian Blouse Suits. made of fine imported pique, with light blue. They all have the cross front lapel effect. Ages 2 to 6

Boys' Regular Sailor Blouse Suits, made of wash fabrics, in neat plain blue, brown, and neat dark and light effects. Nicely trimmed. Price, 69c

JONAS LONG'S SONS,

Scranton, Pa., June 26, 1901

Wednesday will be a day more and more interesting. We aim to gather for Wednesdays the lines of merchandise you are most likely to need, our great Midsummer Sale of it's a puzzler we know to The list herewith given is only a reminder of the thousands season are being sold under a few hints of what can be of goods that await you at price. Note the following price the Great Store.

Have you left any orders tely in the Grocery Departnent? If not, you surely will Ingrain Carpet, made for hall service... 23c.
A Union Ingrain, firmly woven ... 30c.
Splendid quality of All-Wool Ingrain ... 34c.
Tapestry Brussels Carpets, good quality for service a better grade in new patterns and service... 23c.
A Union Ingrain Carpet, made for hall service... 23c.
A Union Ingrain Garpet, made for hall service... 23c.
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A Union Ingrain Garpet, made for hall service... 30c.
Splendid quality of All-Wool Ingrain ... 34c.
Tapestry Brussels Carpets, good quality for service ... 23c.
A Union Ingrain ... 34c.
Tapestry Brussels Carpets, good quality for service ... 23c. Tam O'Shanters-For Boys, in Golf and Yacht shapes, light lately in the Grocery Departand dark colors, nice assortment ment? If not, you surely will Boys' Knee Pants, made of first, last and all the time:

washable fabrics in plain blue checks and stripes—they are all Apple Butter, 3-lb stone crocks 23c lined and have duck waist Jellies, 5-lb stone crocks, all flavors..... 28c Chocolate Premium Cake..... 16c Shredded Wheat Biscuit, per

package..... IIc narrow and broad rim sailor. Golden Prunes, fancy, extra large, 2 lbs ..... 250 Grape Catsup, large bottles... 23c Small bottles..... 120

Vanilla Ex tract, large bottle... 90 Lye or Polash, powdered, 6 cans 25c Pickles, Kent brand, large bottle 14c Seeded Raisins, fancy, 3 pkges 25c Pancake Flour, Century brand, 9c 69c Maple Syrup, quart bottle.... 23c Checker Mackerel, in wine sauce 200 Corn, Webb's Cream, finest

packed .... . 110 with military front, trimmed Rice, Choice Carolina, 3 lbs... 25c Granulated Wheat Shred, made from shredded whole wheat go years...... \$1.98 Cippered Herring, Macanoche Bros . . . . . . . . . . . . . . . 200 Ammonia, large 1/2 gal. bottle, 150

> Evaporated Apples, fancy New York State.... Flour, Jonas Long's Sons' Best, per barrel .... \$4.40

The Midsummer

**Carpet Sale** 

JONAS LONG'S SONS.

Have you taken advantage of Carpets and Rugs? Some of the choicest productions of this

### Rugs and Mats

90c. For a Brussels Rug; size 27x54; all new patterns.
\$1.19 For a Persian Wilton Rug, in Oriental effects; size, 27x54; worth \$1.75.
\$1.49 For a 30x69 Smyrna Rug. This is a double facing in bright colors. It is finished with heavy fringe.
40c. For bright colored Smyrna Mat, good quality.

#### Wall Paper

Some of the best qualities of wall paper 

121/2c and 15c

Border and ceiling to match.

Upholstery

# Jonas Long's Sons

goodly portion of American dollars and honors. He was born in Paris twenty-one years ago, and started racing when sixteen years old. The diminutive French lad did excellent work as an amateur in '96, winning the championship of Paris. Next year as a professional he broke the indoor hour record, in addition to winning a fifty kilometer match from Bourhours. then won the Grand Prix de Paris beating Linton, champion, Bourhours Bourotte and Geugoltz. Visiting America in '97, Taylore defeated Starbuck at Philadelphia, while the following year Joe Venier proved unequal to the task of beating the French lad. In the fall of '98 Taylore broke th world's one-mile record, placing the

igures at 1:32 3-5. Returning to France he twice bettered the hour record, visiting America again in 1900 to meet vith poor success. In Paris, however, early in the spring of 1900, he again broke the hour record, and later won the Golden Wheel race at Berlin. He defeated Elkes and Linton in the twodays' race at Antwerp. At the Paris expedition the representative of the Barnes racing team captured first honors in the Grand Prix, defeating Walters. Chase and the other notables Caylore is 5 feet 6 inches high, rather dark complexion, straight black hair, and tips the beam at 125 pounds.

### STAGE EARNINGS.

What the Season Just Closed Has Brought to the Stars.

William Gillette has gained more ioney than any other person on the American stage this season, says a manager in Everybody's Magazine. That isn't saying he drew more into the theatre, but his income combined that of the author of the play he used, the star actor of the leading role, and half the profits of the business enterprise. No doubt the aggregate was \$2,000 a week for forty weeks, and it may have been much more. I be lieve that the most remunerated dozen American actresses during the same cason were, in the order I name them, Maude Adams, Leslie Carter, Julia Marlowe, Minnie Maddern Fiske, Olga Nethersole, Viola Allen, May Irwin, Annie Russell, Mary Mannering, Ethel Barrymore, Ada Rehan and Henrietta 'rosman. I am sure that Miss Adams came first, Mrs. Carter second, and Miss Marlowe third in earnings, if not in their individual shares. Miss Adams and Mrs. Carter were made stars of by their manager, and no outsider knows the terms of the contracts, but I fancy that each actress is between \$50,000 and \$75,000 better off than she was year ago.

Miss Marlowe controls her own business, and all the profits of it accure to her alone-so it is possible that she goes ahead of either of the others in money for her own bank account Miss Nethersole, too, is her own manager, but her season was shortened by illness and I under stand that sh got out with about \$30,000. Mrs. Fiske's case baffles estimate owing to peculiar circumstances, and how far up to wards the top of the list her name belongs is hard to say. difference as to terms with the syndicate that controls most of the firstgrade theatres of the country, and through which practically all the successful stars of the first magnitude make their routes. As she divides with no manager, it is possible that she stands fifth in the list, or even fourth, among the female stars with, say, \$35,000 to \$40,000. Miss Irwin thrifty and invests shrewdly. Viola Allen was in only the second season under her first contract, and Annie Russell, Mary Mannering and Ethel proves beyond question that he should Barrymore were still newer as stars, into the shape of large wheat sheaves Everybody's Magazine.

ILLUMINATION OF THE GREAT PAN-AMERICAN EXPOSITION.

Beautiful Effects to Be Produced. The Climax of the Great Lighting Scheme to Be at the Electric Tower. A Magnificent Spectacle.

The description of the manner in which the buildings and grounds of the exposition are to be illumined, as given by Mr. Henry Rustin, chief o the mechanical and electrical bureau, is a graphic one. He says: Utility is the first point to be aimed at in lighting the Pan-American exposition When Old Sol ceases to furnish light to guide the visitor and reveal the wonders of the exposition, a substitute will be provided. In providing this substitute an opportunity is offered to produce beautiful decorative effects, and this is the second point to be aimed at. Decorative lighting may serve to be of utility in lighting up an In providing for this double purpose

of utility and beauty it must be constently borne in mind that the supports for the lights shall not be ob structions in the daytime or be out of harmony with the general setting, and though, while in the daytime they serve no lighting purpose whatever, at night such supports become all important.

It is intended that the lighting in the Esplanade, while maintaining lighting unit throughout, which is essential for the purpose of traffic, shall be increased in decorative effect gradually from the entrance to the surroundings of the Electate Tower. which location has been designed as the climax of electrical and fountain Advantage has been taken through-

out the grounds of the different patterns of details of staff to produce an effect of translucency of the staff itself. While the light will stand out plainly, there will be no visible evidence of its source. The fountain displays throughout

the courts will follow the same idea as the lights, and the climax will be at the Electric Tower. In short, as th visitor advances toward the big centerpiece of the exposition he will realize that all the decorative effects increase from the quiet to the strenuous though the change will be so gradual as to be almost imperceptible.

The lights and water will be of the same tone. The sky lines will be defined by the United States government group of buildings on the east and the horticultural group on the west. Thus the effects will be nicely framed. In the Fountain of Man the motion

the water will be very quiet. the Fountain of Abundance, at the foot of the Coutr of Fountains, the motion will be rapid, giving the effect of a great quantity of water, as the name implies, in order to complete the parallel of effects of light and water. basin of the Court of Fountains will be filled with large lets of thrown vertically and called pillar jets, all illuminated with circles of incandescent lights taken up by the project ed water, and will be again reflected on the surface of the basin by the water in agitation from the falling

In this basin also will be located groups of water figures, formed by the manner in which the water is projected

of these water figures, about twelve feet high, on the center axis of the Court of ounFtains.

There will be a group of statuary representing the Genius of Water just north of the Court of Fountains basin. In front of this group water will be made to boil in a mannner serving to earry out the sculptor's dea. It will be in constant agitation, rising to a height of four or five feet above the level of the surrounding water in the basin.

### CLIMAX OF EFFECTS.

The climax of the spectacular lightin front of the Electric Tower and of the water effects in the niche in the tower, which is 70 feet above the basin. On each side of the central axis of the structure will be located two groups of jets of water, with 26 large pillar jets, throwing water to a height of 50 feet. On the arc of the circle whose center is the niche in the tower will be located some 42 large jets. throwing water in parabola curves toward the cascade in front of the niche. These jets will be arranged so as to nake a very ragged stream-that is to say, not broken up as much as in the spray jets. From the niche itself waer will be thrown by means of a delector, breaking the entire volume-2,000 gallons per minute-into an immense water screen.

The arrangement of the color disks o blend the prismatic colors of light brown on the water in front of the Electric Tower will be operated so as o produce a gradual but constant play of changing colors.

The decorative lighting of the buildngs in the grounds takes advantage of the many designs in staff and brings them out either with transluent effects or outlined with points of light. Advantage is also taken of the numerous towers and domes to produce starry effect and the illusion of an infinite number of points of light. Effects of surprising beauty will be

produced in the courts. As an in-stance, in the semicircle around the Fountain of Abundance there will be bed of most beautiful flowers, which will be illuminated at night so as to bring out all their delicate colors. electric lamps for this purpose will be concealed, and their light will be entirely absorbed in the bloom of the flowers, making one of the prettiest effects imaginable.

Many problems of electrical illumintion, with particular regard to their decorative effects, which have in the past baffled solution, have been made plain by later study and experiments and will be seen in their perfection at the Pan-American exposition.

### THE NEED FOR NITROGEN.

Western civilization, pushing ever into new lands, has left behind it a sterility of soil which, within a few years, has brought from the keenest cientific observers a most serious note of ing. A day of reckoning is almost at hand, when the earth will no longer be able to feed the peo-ple. There is no help to be had through farther poshing onward, for, vast as seems the parts of the earth yet unscitled, it is declared that in all that area there is little land which can profit ably be brought under the dominion of the plough. For the older fields, which must be our dependence, one thing alone, the agricultural chemists declare, is necessary to bring them back to fertility. This is fixed nitrogen. Many ambitious attempts have been made to catch flirtations nitrogen of the air and turn it to commercial use. One of these, carried on at great expense and with persistence, was conduct within recent years under the William H. Bauldie, jr., formerly of Baltimore, Success seemed almost assured, when an explo-sion in the works ended the life of their chief engineer, the late tieorge H. Sellers, of Philadel the problem still unsolved --