OMAHA, SUNDAY MORNING, OCTOBER 22, 1911.

SINGLE COPY FIVE CENTS.

PAGES ONE TO TWELVE

Central Source of Energy for a Won-

Study of the Great Orb by C. G. Ab-

derful System.

bott of the Astro-Physical Laboratory of the Smithsonian Institute.

lished by Charles G. Abbot, director of of the sun's functions. It is interesting the astrophysical observatory of the to note that plants raised in darkness are Smithsonian institution, which will ex- not well developed, neither do they be cite a wide interest since it is compre- come green, but remain white or pale hensible to the general reader as well yellow. Consider what strange looking as the sciencist. Not since the issue of vegetation would result if sunlight did lished twenty years ago and now out of find matter for thought in a chapter enand vital subject.

comparatively new study of astrophysics, sign are advanced. known as the new astronomy or celestial physics. In 1873, S. P. Langley, then director of the Allegheny observatory, behad not progressed far when he realized great handicap, and yet if modern investigan his investigations on the sun. He the necessity of more delicate instruments for the measurement of the heat given off by the solar rays and began working on a design for a bolometer which he completed in 1880. This new instrument proved to be a great advance on all instruments previously used for this purpose. His invention practically opened a new subject which was called astrophysics, since it coupled astronomy with physics, Later when Mr. Langley became secretary of the Smithsonian institution he organized the Smithsonian astrophysical observatory for solar research. The utility of this study was at first questioned by congress, but being fuller understanding yet to come? Shall approved by the leading scientists of the United States and Great Britain congress eventually made an appropriation which has been renewed annually,

Mr. Abbott's Record.

In 1894 Mr. Charles G. Abbot, S. M., a graduate of the Massachusetts Institute which here we long to see in vain?" of Technology, was appointed aid in the astrophysical observatory, where he has continued to carry on researches to the present day. In 1907 he succeeded Mr. Langley as director of the observatory. Mr. Abbot has accomplished a great dea in the science of astrophysics, not only by carrying out Mr. Langley's plans, but through investigations which he originated himself. The work soon passed beyond local bounds and was aso taken up by other investigators. Both Mr. Langtion recently erected a shelter available to scientific observers.

The many researches conducted by such men as Campbell, Hale, Langley and Rowland; the investigations of the Smithsonian institution, to ascertain the absolute intensity of the solar radiation out-side the earth's atmosphere; as well as Mt. Wilson observatories, have resulted in the establishment of the International Solar union, an organization numbering among its members the foremost investinating. The great light and heat of the several volumes of miscellaneous contritemperature; the dimness and brown shade of the limb or edge of the sun; the twenty-seventh annual report, deals changing spots which march across its in the first part with the administration disk; the brilliant markings, called fac- and operation of the bureau, and in the ulae, which accompany the spot; the second with the story of the Omaha varying rotation at different latitudes, trbe, the latter a monograph of about and the weird yet beautiful appearance 650 pages, illustrated by sixty-five plates of the corona at total eclipses, have all and 132 text figures. This monograph is been carefully studied. In latter years the development of the spectroscope had Fletcher, who for thirty years has enled to a more intimate and satisfactory knowledge of the sun, its chemical composition, the temperature of the surface, the motion and pressure of the surface vapors ,the character and structure of sun spots and many other details.

Functions of the Sun. It is evident to every one how important the functions of the sun are to us It is a virtual power plant, furnishing light and heat and also the original source of all mechanical and electrical power which is derived from either fuel or water. The enumeration of the comforts, luxuries and beauties, due to the solar rays, is unnecessary, because all men acknowledge and many worship the sun as the source or these benefits.

introduction covering the branches of the solar investigation, and westward migration from its home in the follows with more specific discussions east, "near a great body of water" probwell illustrated by photographs and draw- ably in the Appalachian mountains,

As every one is aware, the solar system, of which the sun is the main body, consists of moons, meteors, comets and vious connection: The Omaha, Ponca, planets, in which latter class the earth Osage, Kansa and Quapaw; these five is included. The earth and the other are closely bound together by language, bodies revolve about the sun, which is organization and religion. a focus in each individual orbit. The 6,500 degrees absolute, would melt any white settlers. known substance, it seems only reasonable to believe this statement. He ing other than gaseous,

the diameter of the sun is slowly deof light and heat, through some 93,000,about 10,000,000 years, the sun is appar- poles for the beans.

ently none the worse for wear. description of various instruments used the aged, the sick and a few who acted with strange hookless lines, or by driving ity to discover the power of a religious the dectrines himself to set the example in solar investigation, including one de- as guards, went on the annual buffalo the fish into shallow water, where they motive for the preservation of social for his people. The first settlement of signed by himself and known as the hunt. This was always conducted with were shot with arrows, speared, or cap- order and the maintenance of peace. Al- the tribe in which a real civilized tenstrument indicates day by day, not only trol of a leader selected for the occasion. the amount of solar heat which reaches The yearly hunt was an event of supreme view of nature and human life rather

SUN A GREAT POWER PLANT of other apparatus, also indicates the amount of this heat lost in coming of other apparatus, also indicates the through the atmosphere. Similar in struments are being distributed through out the civilized world for the measurement of this heat on a uniform scale. Besides the general subject of the sun. MILLIONS OF YEARS NO CHANGE treated from a purely astronomical point of view, the book contains considerable information concerning topics depending thereon, such as botany, agriculture physics and engineering. For example, in

one chapter the author shows the neces sity of sunlight and heat on plant life, indicating the chemical changes brought A book on the sun has just been pub- about in their growth by one or another Prof. Young's book on the sun, first pub- not exist. The physicist and engineer will print, has anything as comprehensive titled "Utilizing Solar Energy," in which been published on this newly-developed many old experiments with solar heat are reviewed, some modern schemes, such as No subject of modern research has ad- soiar heaters, cookers and engines are vanced with such gigantic strides as the explained, and some data for use in de-

Science in Its Infancy.

The science of astrophysics is in its infancy; the lack of past records is its gators continue to observe and faithfully record their observations, there awaits some future astrophysicist of the days to come, a vast, if not complete, knowledge of the evolution of the universe.

In conclusion the author says: "The child is said to long to grasp the moon. Who in his maturer years, has never wished that he might stand upon the moon, and watch the earth at full, a glorious planet of the night, four times as far from rim to rim, and twice as bright in every part as is the moon itself! Who, thinking more gravely, has not wished sometimes he had been born in later years, when he could share the we not live in hope that if we worthily contribute to that happy end we, too, may join with that great company whose patient and sound labors have given us what we know, and in a future life with them may see unrolled the wider view

Smithsonian Report on Omaha Indians Just Off the Press

There is probably no subject which would appeal to as many people, or present better opportunities for investigaley and Mr. Abbot made observations on tion, than the history of the American the top of Mt. Whitney, the highest Indian. Yet it is a subject not generally point of land in the United States, and known or appreciated, in spite of the it was here that the Smithsonian institu- fact that the Bureau of American Ethnology has been for the last thirty-two years publishing the results of comprehensive researches into various phases of the life history of the native Americans. In the course of its service the bureau has conducted researches into Indian languages, customs, government and the work of the Yerkes. Kodaikanal and social organizations, religion, music and arts and industries, as well as into the physical and mental characteristics of the people; studies covering nearly sixty linguistic families and more than 300 gaiors of the world. The subjects these tribes. Its publications tetal twentymen study are most attractive and fasci- seven reports, fifty-one bulletins and

butlons The latest publication, designated as the joint production of Miss Alice C. joyed exceptional opportunities for ethnological studies among the Omaha people, and Francis La Flesche, himself an Omaha, the son of a former principal chief. This peculiarly fortunate collaboration gives the paper especial significance as an important contribution to American ethnology, and it forms the most complete monograph of an Indian tribe which has yet appeared.

The Indians forming the Omaha tribe now live in the state of Nebraska, in the counties of Burt, Cuming and Thurston, where land was ceded to them by an act of congress in 1882, amended in 1893. On this reservation, selected by them in 1854, is gathered the remnant of Mr. Abbot opens his book with an a once great tribe of Slouxan stock, which various had begun several centuries before, a

Although there were at one time many tribes which together constituted the Omaha group, today only five have ob-

Both the Omaha sacred legend, with sun itself is a tremendous spherical body which the paper deals at some length, having a mass equal to 322,800 times that covering their early migration to their of the earth, and is of a unique compo- settlement in the west, and the resition, the analysis of which has been searches of the authors show the Omaha a problem scientists have labored over to have been a quiet and peaceably infor hundreds of years. According to the clined people, maintaining an attitude of author's theory, the sun is composed defense rather than arrogance towards of a gaseous or vaporous substance, ex- other tribes and the white settlers. It cept in the spots. He holds that the is recorded that the Omaha were never temperature is too great to permit its at war with the government and that it being in a solid or liquid condition. As is the only tribe which has continued to the temeperature attrbuted to the sun, live in Nebraska since the advent of the

While not traveling, the Omaha estab lished their villages near streams, confurther states that the specific gravity venient to timber, and generally on hillis too low to permit the sun's mass be- sides where good garden sites could be obtained. Here their dwellings took the form of either earth lodges, conical tents The visible part of the sun is in the or tipuls. Some of the tipuls were so large form of a gaseous shell, known as the that the hides of several buffalo were rephotosphere. It is clear and tycandes- quired to make a single covering. Each cent, due to the great tamperature. Al- family had a corral of horses and cultithough it is theoretically probable that vated a certain part of the hillsides or low lands, where corn and other vegeta-

The author devotes one chapter to the well advanced, the whole tribe, except Men. women and children fished either an elemental statesmanship and an abit- ganization of schools, always practicing silver disk pyrheliometer." This in great ceremony and was under the contured by hand. the earth's surface, but, with the help importance to the whole tribe, for on its than a fanciful one, and while this may (as their word for "tribe" indicates) when | Following the location, history and tra-

Sale of Linens and Bed Spreads

35c and 40c guest towels with hemstitched or scal-loped edges, have an embroidered place for monograms and initials, Monday only, 25c each, \$1.00 and \$1.25 all lines hack towels--a good variety to choose from, Monday only, 79c each, 85c, 72-inch, mercerized table linen of a fine

quality; a good assortment of patterns; Monday only, the yard ... 68c

\$2.50 full size fringed bed spreads with cut corners all newest designs, Monday only, \$1.98 each.

35c, 28x36-inch all linen nuck towels with blue, recording to the best towels ever regularly sold for 35c; Menday only, \$5c each.



Beddings and Domestics at Less \$12.50 silk covered comforts with extra fine quality pure wool fillings—a new line—Monday only, \$3.50 each.
The \$10.00 ones, Monday, \$7.50 each.
3,50 to \$10.00 fine down comforts with best sating coverings, only one dozen in the lot; Monday only, \$5.25 each.

\$2.50, full size, grey and tan wool nap blankets, that will wear and wash

well. Monday only, choice at ... \$1.89

'Tis easier to reckon money than merchandise--cash than curtains, for exampel.

The past week we received a large shipment of fine lace curtains from our New York buyer, purchased of a Jobber who found himself more in need of money than the curtains. That's part of the why of this sale.

The other reason is that we have done a very extensive business with home furnishers this fall which has resulted in many broken lines and several

All the above are included in this exceptional curtain opportunity, and we would like for you to come to the sale even if you are not in need of curtains. You will see many new patterns and designs that will interest you. Now for the most interesting part-the prices:



Mill Curtain ends at two for 25c or. 14C Another lot of mill curtain ends 35C at two for 63c or, each 55c ruffled swiss curtains in designable for bed rooms, 2 271/2c Ruffled swiss curtains worth \$1.25 65C Euffled bobbinet curtains suited to dainty La Salle lace curtains with best quality French cable net body, \$6.75 \$3.98 values at the pair Beautiful imported Brussels net curtains In elegant designs for parlor use, \$7.75 values at, the pair. \$5.75 an cud lot of single curtains that sold up to \$8.75 the pair, while they last, 35c

A Carload of New Dressers to Sell Out at Little Prices this Week

Here is another one of the famous Bennett sales in which comparison

Here is another one of the famous Bennett sales in which comparison leaves this store alone in the lime-light of best values.

At this store you can choose furniture with every confidence that there are no hidden errors of making; that every article is made of first-grade, properly seasoned woods-not the shrinking, warping, klin-dried variety.

A little varnish, a few drops of stain and the hastily made piece of furniture looks worthy, even though the gluing and fitting have oeen slighted.

There is nothing easier to hide than carsiessness in furniture construction. We want satisfied customers-customers who will come back for more articles when in need--and no store can hope to retain or hold its customers with poorly made furniture. So, we ask you to buy here for your confidence will never be abused.

Quarter Sawed Golden Oak

Dressers in full Colonial designs; and two small top drawers: 24x30-inch French plate mirror with beveled edge-\$25.00 values at

\$18.00



Quarter Sawed Golden Oak Dressers

and two small drawers, like cut; 16x28-inch small drawers and French bevel plate mirror 18x36-inch French -sold most places at \$18.00; Bennett's price, while they last

\$13.25

Colonial Dressers

of fine quarter sawhave two large drawers ed golden oak; full swell front design with 24x30-inch French bevel plate mirror - Bennett's special price

\$25.00



Fine quarter sawed golden oak chiffoniers to match above dresser; have 16x20inch French bevel plate mirrors -- Bennett's special price

\$22.50

Princess Dressers

of quarter sawed golden oak; have one with two large drawers large drawer, two plate mirror -- Bennett's special price,

\$15.00

Golden Oak Dressers

Solid golden oak dressers with three large draw ers and French bevel plate mirror-like cut-a dresser that is sold other places in this city for as much as \$15.00; our

\$8.50

Solid Golden Oak Chiffoniers Solid Golden oak chif-

foniers without glass; have five large drawers and exactly match above dresser-Bennett's price

\$6.50 1,000 Colonial Cut

> Glass Salt and Papper Shakers at 10c

10c Each

Punch Eowls with Gl sses

Just 100 large size \$3.50 punch bowls with twelve handled sher-bet glasses are offered for Mon-day at 58c for the set.



In no season have our stocks of women's costumes, reception gowns, evening wraps, coats and tailored suits been so diversified in style showing and so complete as now.

From the simple, strictly man-tailored shopping suit to the elaborate evening gown, our collection includes every new style that the arbiters of fashion have considered correct. Of course, all these have been Americanized or altered to a type that meets the requirements and fancy of the American woman. To get a little closer home: We selected only such models as we thought would appeal to the women of Omaha and tributary territory, and the daily increasing crowds of buyers prove our forecasts were correct. At lesser prices we sometimes show more than one of a kind; but in the medium to higher priced garments there's just one of each fabric or style, insuring exclusiveness and individuality to the wearer.

Suits of the better class-only one of each kind. Soft brown and grey mixtures with collars finished with white materials, plain tailored and trimme! only with fancy buttons, \$35.00 the suit. Others

in different shades of broadcloth-about fifty very select models -- choice of trimmings, colors and styles at \$50.00 down to

Many beautiful coats of the better sort have also come to us the past weekkerseys, meltons, cheviots, broadcloths, serges and mixtures in black, plain colors and rich combinations of colors. Some of them are the new reversible coats which must be seen to be appreciated; some are made along severely plain lines while others are as handsomely embellished as madam can wish. For this assortment the prices range from \$39.50 down to \$17.50, with many in between.

15 lbs. Granulated Sugar, \$1.00 And Other Grocery Bargains for Monday and Tuesday.

net's Golden coffee and 20 mps, 1b. 26c, assorted, and 60 stamps, 1b. 56c cream cheese and 10 stamps, 1b. 20c.
b. can Amber Drips and 10 21/2-lb. can Amber Drips and 12140 Swansdown codfish and 5 sta Swansdown codfish and 5 stamps pkg. 100 Bennetts Capitol extracts and 20 stamps bottle 180 2 cans hulled beans with chicken and 30 stamps 250 Gaillard's pure olive oil-special offer of a pint can for Snider's hills sauce and 10 stamps bottle 250 calculated and bottle
3 cakes York Violet tollet soap and
20 stamps.
Assorted pickles and 10 stamps, bottie ...190

2-lb. pkg. Bennett's Capitol bats
10 stamps
10 stamps
10 bkg. Bennett's Capitol pancake
flour and 10 stamps
10 stamps 20 stamps 250 DOUBLE STAMPS ON ALL KINDS OF BUTTERINE,

OF HUTTERINE.
Silder's pork and beans and 15 stamps, can 18e
Beauty asparagus and 10 stamps.
call 25c
Six Pounds of Navy Beans 25c
3 pkgs. Swift's Pride Cleanser and 10 stamps. 25c Six Pounds of Navy Beans ... 3 pags. Swift's Pride Cleanser

They have combination nickel, silver and china tops and regularily sell at 59c the pair. No telephone orders filled and none delivered at this price. Monday only, while they last

\$3.50 Values, 98c

Fashionable Dress Goods and Silks are Reasonable in Price at this Store.

STORM SERGES-a very popular fabric for this season's suits, skirts and dresses--pre-shrunk and sponged, all ready for the needlefull 50 inches wide; choice of black, navy, duck, tan, brown, grey, garnet and hunter's green at \$1.00 the yard.

Polo cloths make the finest coats for autumn and winter weather. At this s ore you find extra qualities, in wanted shades, full 54 inches

wide, at, the yard . . . A splendid line of colored messalines for dresses, waists and linings-almost every conceivable shade as well as the staple colors-full

36 inches wide and offered as a leader at \$1.00 the yard. Plaid silks for waists are showing an increased demand this sea-Complete lines in various new patterns and color combinations, including the satin barred and satin striped plaids await your choosing at \$1.00 and \$1.50 the yard.

food, as well as the skins for clothing also developes his mind and leads to a the integrity of the tribe. creasing at a certain rate, due to radia- bles were raised for winter provisions and and trade. The leader of the hunt and certain steadiness of character, placing tion and contraction, it cannot be de- for trade. Corn or maize was the prin- an assistant, who answered to his name the value of thought above emotion. This tribe upon its reservation stands Joseph and, finally, in the appendix, the modcided practically, as it would take 10.- cipal food, and every household had its and took all the blame in case anything is undoubtedly the cause of tribal control La Flesche, father of the co-author, 000 years to cause an appreciable change garden where the corn was carefully went wrong. This official scapegoat, in certain instances, where the individual Francis La Fiesche. At that time chief in the solar diameter. Even after trans- planted, weeded and hoed until it was being appointed by the chief, held his ofmitting energy to the earth in the form well grown. Squashes, melons and beans fice with dignity and remarkable good as a whole. were grown, and sometimes in the same nature. Some hunting for deer and elk 600 miles of space, during a period of field with corn, the stalks serving as was done in a desultory way in the win- group of native Americans, sturdy in roads and boundaries, advised the con ter by small parties and even by individ-

The individual Omaha takes a practical

It appears that the Omaha tribe is a nize that fighting was not the only route and known as "the village of 'Make Beto achievement, but was best employed lieve' White Men."

Prominent in the establishment of the

out a plan of his own for the systematic formation of a township. He laid out mind and body, more given to industrial struction of houses, introduced trading In the summer, after the crops were uals. Fish was a popular article of diet. than to artistic pursuits, yet gifted with and farming, and attended to the orthough good fighters, they came to recog- dency prevailed was organized by him

results depended the annual supply of tend to make him somewhat prosale, it exercised for defense of their homes and ditions of the tribe, is a treatize of its "Not guilty" to a charge of burgtary. rituals, food, music, warfare, language, ern history, including the effect of the white race and the resulting present con-

GIVING THE GAME AWAY

Badgering Lawyer Extracts Some Information About the Court.

In a little sequestered country town, where the court of justice is over the general store, and where the judge is an old, grizzled farmer, thoroughly familiar with pitching hay and milking cows, but having a very limited knowl-

divisions, organization, ceremonies and The lawyer for the prosecution was en deavoring to show the court that the acused was a man of low character. "What were you doing the night before

the robbery?" he questioned severely. "I was playin' pinochle with Jed Parker and another fellow," answered the pris-"Ah, I thought so!" shouted the lawyer

oner evasively. triumphantly. "Playing cards, and with that loafer, Jed Parker! Gambling and in bad company! But you mention a third party, sir. Who was the other good-

for-nothing?" The prisoner hesitated. "Answer me!" beliewed the lawyer. "Wa-til, if ye must know," said the acused, "it was the judge here,"-Judge's