

SCIENTIST DISCOVERS SECRET OF SEA LIFE

Eminent Scientist Reports Success of Experiments on Eggs Treated Artificially Means Form Membrane as Nature Does

BERKELEY, May 22.—One more important step has been taken by Professor Jacques Loeb in his search for the causes that produce life, the latest discovery of the famous savant being described in a bulletin issued to-day at the University of California. Dr. Loeb announces that he has finally completed an imitation of the fertilizing effects of spermatozoon in sea urchins by chemical means. He has caused the formation of a membrane around unfertilized eggs, this being the first of the processes that follow the entrance of natural spermatozoon when eggs are fertilized and life is created.

One result of this latest discovery of Dr. Loeb's is that he resigns a theory he promulgated five years ago, when he "ventured the suggestion" that the "process of membrane formation is a process of coagulation." He says to-day: "From a closer observation of the process of membrane formation I am inclined to believe that it is due to a process of secretion."

According to the method described in my two previous notes, the unfertilized eggs of the sea-urchin (*Strongylocentrotus purpuratus*) were first submitted for two hours to hypotonic sea water (10 cc. of water plus 15 cc. of 2% NaCl solution), and were then treated with acetic or formic acid in order to produce a membrane. Since the process of fertilization by sperm the membrane is formed immediately after the spermatozoon enters, it seemed to me that in the case of a complete imitation of the fertilizing effects of the spermatozoon should also constitute the first in the series of events. I had, however, met with the difficulty that when the membrane formation is caused first, and the eggs are submitted for two hours to the hypotonic sea water afterward, they will not set as do the unfertilized eggs. I have since found that this difficulty can be overcome by the use of a complete imitation of the fertilizing effects of the spermatozoon. This can be done by the use of a complete imitation of the fertilizing effects of the spermatozoon. This can be done by the use of a complete imitation of the fertilizing effects of the spermatozoon.

My method of procedure is as follows: The eggs are first treated with one of the acids which cause the membrane formation. For this purpose 3 cc. of a 10% solution of a fatty acid, e. g., acetic, formic, butyric or valeric, etc., are added to 50 cc. of sea water. The eggs remain in this solution for 15 to 30 minutes, when they are transferred back to normal sea water. They form a membrane which cannot be distinguished from a natural membrane. Since these experiments proved the great significance of the process of membrane formation, it was of interest to ascertain which substances are fit to call forth this process. It is obvious that a complete knowledge of these matters is essential to the understanding of the process which is responsible for the membrane formation immediately after the spermatozoon has entered the egg.

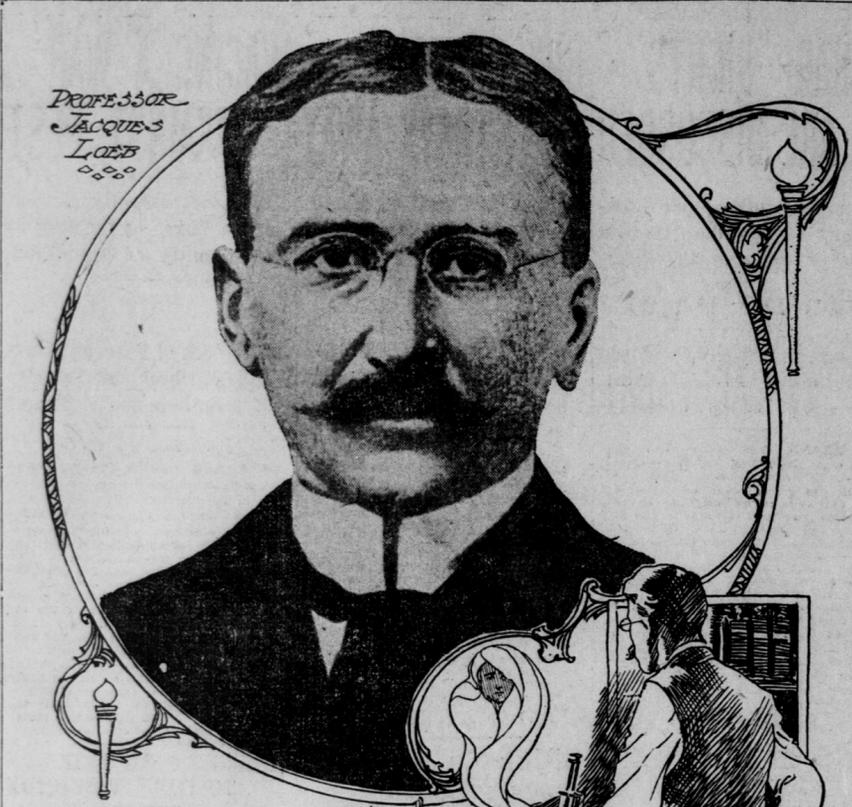
I find that the substances which call forth the membrane formation in the egg may be divided into two groups. The one group includes hydrocarbons and certain products of their oxidation, e. g., alcohols, aldehydes, ketones, etc. The two groups differ, in that the membrane formation occurs in the latter in contact with the hydrocarbons, but does not occur while it is in contact with the acids, but only after it is transferred back into normal sea water.

WHAT FACTS SHOW.
All the facts mentioned in this and the previous communications indicate that the process of membrane formation is a secondary phenomenon in this method of artificial fertilization. The eggs are treated with a fatty acid, but not long enough to call forth the process of membrane formation, or with an acid that is unfit to call forth this process, e. g., nitric acid, a subsequent exposure of the eggs for about 30 to 50 minutes to hypotonic sea water will not cause the eggs to segment or develop. It should, however, not be overlooked that the process of membrane formation in these experiments followed by the formation of a spindle, and that this is the case in all experiments. The fact that only certain acids act in this way is of interest, since an opinion from a closer observation of the process of membrane formation I am inclined to believe that it is due to a process of secretion, i. e., the squeezing out under pressure of a liquid from the interior of the egg. I am no more able to state the nature of the force which underlies secretion in this than in any other case.

DOAN'S PILLS.
TESTS PATIENCE.
The Most Patient San Franciscoan Must Show Annoyance at Times.

Nothing spoils a good disposition, Nothing taxes a man's patience, Like any itchininess of the skin. Itching Piles almost drive you crazy. All day it makes you miserable. All night it keeps you awake. Itch, Itch, Itch, with no relief. Just the same with Eczema. Can hardly keep from scratching it. You would do so, but you know it makes it worse. Such miseries are daily decreasing. People are learning they can be cured. Learning the merit of Doan's Ointment will cure Piles, Eczema or any itchininess of the skin. Read the testimony of a San Francisco citizen. Mrs. A. F. Wick of 3 1/2 Tav st. says: "For ten years I had attacks of eczema on the back of my hand. It broke out between the knuckles, causing a soreness and itching. When the attacks occurred I used internal and external medicines and paid as much as a dollar a box for ointment and never knew the moment when the skin disease would return. Doan's Ointment stopped the last attack. During the last six months there has not been a symptom of a recurrence." For sale by all dealers. Price 50 cents. Foster-McClellan Co., Buffalo, N. Y., sole agents for the United States. Remember the name, Doan's, and take no other.

SOZODONT TOOTH POWDER
and its complement, SOZODONT Liquid. The Powder is slightly abrasive, is absolutely free from grit and acid, and is just the thing for those who have an inclination for the niceties of every-day life.



TRIES TO KILL TOOTH PULLER

Special Dispatch to The Call.
LOS ANGELES, May 22.—Believing that his sister, a girl of 18, had been enticed to the residence of Dr. M. J. Davis, whose wife is in the East, George L. Butterfield, manager of the Whitney Trunk Company, went to the doctor's residence on Westlake avenue, one of the most aristocratic parts of the city, late last night and tried to shoot Davis.

When Butterfield appeared at the door Dr. Davis tried to shut it as soon as he recognized his visitor. Butterfield then drew a revolver and fired through the glass in the door. He then broke out the glass with his fist, opened the door and pursued Davis through the house. The doctor escaped through a rear door and took a woman with him.

He secreted the woman in the yard of a church and there they were found by a special policeman, who took the girl to his home. Butterfield found a policeman and accompanied him to the Davis' residence after the shooting. They searched the place, but found nobody in the house.

Butterfield was arrested on a charge of carrying concealed a deadly weapon and pleaded guilty in court to-day. Dr. Davis did not appear against him. Davis is a dentist.

ALLEGES HUSBAND GAVE HER BEATING
Wife of Dr. Belmont Seeks \$10,000 Damages From Spouse.

Special Dispatch to The Call.
NAPA, May 22.—Mrs. Theresa Delmont to-day sued her husband, Dr. Francis Delmont, for \$10,000 damages. She alleges that about midnight on August 5, 1904, at "Chantilly," their handsome country residence, Dr. Delmont attacked her. She says he beat and struck her with great force with a large whip and with his fists, in the presence of a constable and other people, and drove her out of the house.

FORMER MINISTER CHARGED WITH CHEATING A WOMAN
Trial of J. J. Smith of Oakland Is Commenced in San Jose Court.

SAN JOSE, May 22.—J. J. Smith of Oakland, formerly a minister of the gospel, was placed on trial to-day before Judge Welch of the Superior Court on the charge of obtaining \$100 from Kate Boyle by false representations. Smith, it is alleged, induced the woman to purchase 250 shares of stock in the Altadena Mining Company for \$250. Most of the day was occupied in securing a jury.

EAGLES OF SAN JOSE OPEN THEIR FIESTA WITH PARADE
Members of the Order Grottesquely Attired March Through Streets of Garden City.

SAN JOSE, May 22.—The Eagles' carnival, which will last a week, was opened to-night with a grand street parade. About 200 Eagles were in line, a number of them being in grotesque costumes. At Sixth and Santa Clara streets, the Fiesta Carnival Company has erected its attractions. These include a score of side shows, with all kinds of features.

MORGAN AS ENTERTAINER

New Comedian at the Tivoli Scores Hit in Performance of "The Tenderfoot"

OPERA IS WELL PUT ON

Plenty of Good Music and Fun, and Girls and Costuming All to Be Desired

The best feature of "The Tenderfoot," which opened at the Tivoli last night, is Charles Morgan's portrayal of the character of Sergeant Barker. Every one knows that the opera is one of the best of its kind on the stage to-day, but not all are aware of Morgan's ability as an entertainer. He had things all his own way with last night's audience and before the week is ended they will have good houses at the Tivoli to see Morgan and "The Tenderfoot."

The Tivoli management has given much time and attention to this opera and the results are highly satisfactory. The costumes are all that could be desired and the stage settings are quite in keeping with the most elaborate theater-going as well. The house was not as well filled last evening as the production deserved, but those in attendance will all be good advertisers. There is mirth and music enough in "The Tenderfoot" to please even the most fastidious theater-goer.

Aida Hemmi and Nellie Lynch sang particularly well last night. The choruses were excellent. Willard Simms in the title part was exuberantly funny. William Schuster in the part of the gambler also appeared to advantage.

Pretty Grace Palotta, as the authoress, made a decided hit. Next to Morgan she was the favorite of the evening. Zita Lovell and Harry Conant succeeded in causing much laughter. Albert Weller, Joseph Joseph, E. M. Saxon and Joseph Mills helped to make the performance a success.

"A Romance of Athlone" is another of those new style Irish plays which are rapidly driving out the barndoor jig and potheen jug article in favor of a more dignified and truthful representation of Irish character. There are neither red coats nor soggyraths in the play, but there's a pretty collection and there are gypsies galore for picturesque effect.

The farce comedy, "A Fool and His Money," by George H. Broadhurst, was presented at the Tivoli last night to a crowded house. The audience was kept in almost incessant laughter from the rise to the fall of the curtain. John Craig was admirable as Percy Merrill, who wanted to find out who his friends were. Miss Lawrence was charming as Eleanor Ashton. John B. Maher did a fine piece of character work as Baron von Hinkelwitz. Howard Scott, Harry S. Hilliard, John Davies, Miss Elizabeth Waddan, Miss Mary York and Miss Adele Belgarde and Miss Ruth Allen had congenial parts.

"The Convict's Daughter" was played last night before a large audience in the Central Theater. Jim Corrigan in the leading role was a success and as a heroic tramp proved his ability both from a comedy and dramatic standpoint. Miss Ellsmer was never so good as in another play. Henry Shumer made a realistic villain. Millar Bacon, Myrtle Vane and Lillian Elliot contributed much to the success of the drama. The scenic effects were exceptionally attractive and the sensational situations were startling in their realism.

BONAPARTE ABANDONS PROJECTED MARRIAGE
Prince Napoleon Victor Not to Wed Clementine of Belgium.

TURIN, Italy, May 22.—Prince Napoleon Victor Bonaparte to-day received the Bonapartist leaders at Castle Moncalieri and informed them that his projected marriage with Princess Clementine of Belgium had been abandoned.

SAN JOSE BUSINESS MAN FORSAKES BACHELORS' RANKS
Weds Miss Serena Anita Carteri, a Popular Young Woman in St. Patrick's Church.

STUDENT AT HIGH SCHOOL BREAKS ARM THROWING BALL
Limb Twists as Young Delivers Sphero and the Bone Is Fractured.

BELLINGHAM, May 22.—Coston Carver, a student at the Bellingham High School, sustained a fracture of his right arm to-day while throwing a ball. He in some manner twisted his arm so that the force of the throw broke the bone.

BELOGRADE, Serbia, May 22.—The Pastic Ministry has again resigned. The Cabinet, formed December 11, 1904, under the Premiership of M. Pastic, resigned February 6 last in consequence of court intrigues against the Premier. The King requested the Ministers to retain office until he had conferred with the politicians and the Cabinet's resignation was withdrawn February 9.

CATARRH OF KIDNEYS



Backache Is the First Symptom of Catarrh of the Kidneys.

SEVERE CASE OF CATARRH OF KIDNEYS AND BLADDER CURED BY PE-RUNA.

Mr. George King, Deputy Sheriff of Rensselaer Co., N. Y., for years was a well-known merchant of Troy. In a letter from No. 45 King St., Troy, N. Y., he writes:

"Peruna cured me from what the doctors were afraid would turn into Bright's disease, after I had suffered with catarrh of the bladder and kidney trouble.

"Peruna is a blessing to a sick man. Eight bottles made me a well man and were worth more than a thousand dollars to me. I cannot speak too highly of it. It is now four years since I was troubled, and I have enjoyed perfect health since."

Address Dr. Hartman, President of The Hartman Sanitarium, Columbus, O.

CATARRH of the kidneys—that is what makes people have a weak back. It is catarrh of the kidneys. The kidney is being gradually destroyed by this derangement.

The mucous membrane lining of the kidney is inflamed—ulcerated. The catarrhal products are irritating, and are sapping away the vitality of the kidney, which makes the back weak.

This causes people to become old before their time—holding on to their backs—unable to stoop over without pain—and having sudden cramps in the muscles of the back.

Catarrh of the kidneys—that is what is ailing them. A course of Peruna is what they need before the kidneys have become permanently destroyed.

CORN AND WHEAT JUMP IN CHICAGO

Corner in the Former Sends Price Up With a Rush.

CHICAGO, May 22.—A stampede of shorts to-day advanced the price of corn for May delivery precisely 6 cents a bushel. It was current gossip that the May option is practically "cornered" by a few prominent traders. A desire to avoid possibly greater loss than already incurred was the cause of the urgent demand to-day from those who were on the wrong side of the market. The May delivery opened at 53c. The price quickly jumped to 59c a bushel. Realizing sales caused a reaction to 57 1/2c.

A somewhat similar situation developed in the wheat pit. On an active demand from shorts the price of wheat for May delivery was forced up 4 cents a bushel. Much of the gain was subsequently lost on profit taking. May wheat opened at 95c. After advancing to 1.03 the price dropped to 1.01 1/2.

After the early bulge the market quieted down considerably. Under continued profit taking the price of May corn sold off to 55 1/2c. The wheat market also lost much of its bullishness. Final quotations on May wheat were at 1.01, a net advance for the day of 3c. May corn closed at 55 1/2c, a gain of 4 1/2c.

PRESIDENT'S SON TO VISIT AUTHOR IN CALIFORNIA
Theodore Roosevelt Jr. Will Accompany Stewart Edward White to the Yosemite Park.

SANTA BARBARA, May 22.—Stewart Edward White, the author, will leave his Santa Barbara home this week with Mrs. White for their summer lodge at North Fork, Madera County, in the Sierra Nevada Mountains. White will entertain at his North Fork resort this summer Theodore Roosevelt Jr., son of President Roosevelt, who will spend several weeks in Yosemite with White. Young Theodore will join the party at North Fork on July 1.

WASHINGTON, May 22.—Orders were prepared at the Navy Department to-day directing Rear Admiral Sigbee, whose squadron has been selected for the honor of being taken to the United States the remains of John Paul Jones, to be ready to proceed from New York not later than June 8.

UNITED RAILROADS BONDS CAUSE SUIT

Judge Parker Figures in Action Over San Francisco Securities.

Special Dispatch to The Call.
NEW YORK, May 22.—Judge Truax heard testimony to-day in the suit brought by Zimmerman & Forsyth, bankers, to recover \$40,081 and interest from June, 1902, from Zimmerman, Dahlgren & Co., also bankers, as damages for failure to deliver bonds of the United Railroads of San Francisco. Other actions are pending. The litigation arises out of an issue of \$35,775,000 of bonds of the United Railroads of San Francisco under the management of Brown Brothers & Co.

But \$5,000,000 of the bonds were issued. It is said, and these were not floated in the East. Zimmerman, Dahlgren & Co. are charged with failure to make a delivery of \$27,000 of the new bonds at an average of \$8.50. Former Judge Alton B. Parker, with Mr. Cardozo, appeared for the complainants.

It is said the contracts were never carried out according to the rules of the Stock Exchange, and under all circumstances there can be no recovery. Brokers are watching the outcome of the action.

INJURY TO GERMAN EMPRESS MORE SERIOUS THAN STATED
Her-Fall Down the Stairs at Wiesbaden Leaves a Scar on Her Forehead.

WIESBADEN, May 22.—The accident to the German Empress Augusta Victoria, who fell downstairs yesterday, while rather more serious than at first reported, will not have any serious consequences. The cut on her forehead probably will leave a slight scar. The Empress suffers from occasional attacks of vertigo and to this is attributed her loss of balance on the stair. It is announced that the Empress will not leave Wiesbaden for Berlin until Thursday, from which it is supposed that she suffered more from her fall than the physicians' bulletin stated. Another unofficial version of the accident says the Empress also sprained her right ankle.

Hats \$1.95 All Styles

Hats for business, hats for pleasure, hats for every kind of an occasion at prices lower than you pay elsewhere—lower because we make them lower so as to have them serve as leaders to get you acquainted with our stores. Stiff hats in all the latest shapes; colors black, brown, russet and tan; contrast band and binding.

Soft hats in all the seasonable shapes; colors even more numerous than in the stiff hats; variety of brims, crowns, binding, bands, etc., to suit every taste. Any of these hats—worth \$2.50, for \$1.95. Outing hats—can be rolled or folded up—50c.

Ladies should visit the Art and Reception Room in the Powell and Ellis store—music every afternoon from 2 until 5.

S. N. WOOD & CO

Cor. Powell and Ellis and 740 Market Street.