

A COUNTING CHIMPANZEE.

Remarkable Results of an Inmate of London's Zoological Garden.

Nature prints an interesting paper read before the Zoological Society of London by Prof. George Romanes, F. R. S., and from it the following extracts are made:

"The female chimpanzee which has now been in the society's menagerie for six years has attracted general notice, not only on account of her peculiar zoological characters, but perhaps still more on account of her high intelligence. This is conspicuously displayed by the remarkable degree in which she is able to understand the meaning of spoken language—a degree which is fully equal to that presented by an infant a few months before emerging from infancy, and therefore higher than that presented by another brute, so far, at least, as I have met with any evidence to show. Nevertheless, the only attempts that she makes by way of vocal responses are three peculiar grunting noises—one indicative of assent or affirmation, another (very closely resembling the first) of dissent or negation, and the third (quite different from the other two) of thanks or recognition of favors. In disposition she is somewhat capricious, though on the whole good-humored, fond of her keepers, and apparently never tired of a kind of bantering play which, off and on, they keep up with her continually.

"A year or two ago it occurred to me that I might try some psychological experiments on the intelligence of this animal. The circumstances in which she is placed, however, did not prove favorable for any thing like systematic instruction. Being constantly exposed to the gaze of a number of people coming and going and having her attention easily distracted by them, she was practically available for the purpose of tuition only during the early hours of the morning, before the menagerie is opened to the public, and, as a rule, I did not find it convenient to attend at that time. Therefore the results which I am about to describe do not, in my opinion, represent what might fairly have been expected under more favorable conditions; if the chimpanzee could have been kept as a domestic pet for a few months (as I kept the Cebus kindly lent me for the purposes of psychological observation by this society) there can be no doubt that many much more interesting results might have been obtained. Nevertheless, it appears to me that even those which have thus far been obtained are worthy of being placed on record.

"Having enlisted the intelligent co-operation of the keepers, I requested them to ask the ape repeatedly for one straw, two straws or three straws. These she was to pick up and hand out from among the litter in her cage. No constant order was to be observed in making these requests, but whenever she handed a number not asked for her offer was refused, while, if she gave the proper number her offer was accepted, and she received a piece of fruit as payment. In this way the ape was eventually taught to associate these three numbers with their names. Lastly, if two straws or three straws were demanded, she was taught to hold one straw or two straws in her mouth until she had picked up the remaining straw, and then to hand the two straws together. This prevented any possible error arising from her interpretation of vocal tones—an error which might well have arisen if each straw had been asked for separately.

"As soon as the animal understood what was required and had learned to associate these three numbers with their names, she never failed to give the number of straws asked for. Her education was then extended in a similar manner from three to four and from four to five. For reasons to be presently stated, I allowed her education to terminate. But more education of the keepers has endeavored to adhere to her instruction as far as ten. The result, however, is what might have been anticipated. Although she very rarely makes any mistake in handing out one, two, three, four or five straws, according to the number asked for, and although she is usually accurate in handing out as many as six or seven, when the numbers eight, nine or ten are named, the result becomes more and more uncertain, so that it is suggestive of guesswork. It is evident, however, that she understands the words seven, eight, nine and ten to betoken numbers higher than those below them; for if she is asked for any of these numbers (i. e., above six) she always gives some number that is above six and not more than ten; but there is no such constant accuracy displayed in handing out the exact number named as in the case below six. On the whole, then, while there is no doubt that this animal can accurately compute any number of straws up to five, beyond five the accuracy of her computation becomes progressively diminished.

"It is not necessary—indeed it would be unreasonable—to suppose that in this process of 'counting' the ape employs any system of notation. We know from our own experience that there is counting and counting, i. e., distinguishing between low numbers by directly appreciating the difference between two quantities of sensible perception with a amount by marking each perception with a separate sign. The extent to which the former kind of computation can be carried in the case of man has been made the subject of a careful research by Prof. Freyer, of Jena. His experiments consisted in ascertaining the number of objects (such as dots on a piece of paper) which admit of being simultaneously estimated with accuracy, and it was found that the number admits of being largely increased by practice until, in the case of over 100 objects, it may rise to more than twenty. But of course in the case of a brute it is not to be expected that such a high degree of proficiency even in this non-notative kind of 'counting' should be attainable. The utmost that could here be expected is that a brute should exhibit some such level of ability as is presented by a young child, or by those savages whose powers of accurate computation do not appear to extend further than numbers which we write as units. It was in view of such considerations that I did not attempt to carry the education of this ape beyond the number five, and the result which has attained subsequent endeavors to teach her numbers as high as ten is, as previously remarked, exactly what might have been anticipated. It may here be added that in the only records with which I am acquainted of animals exhibiting any powers of numerical computation these powers have not extended beyond the number five."

"A Valuable Cat's Eye." The most valuable cat's eye in the world was brought to London recently from Ceylon, the only region besides Madras where cat's eyes are found. It was found by an Indian working-man who was grading a bank of earth, preparing for the opening of a street. He sold it for thirty rupees. After passing through several hands, the big cat's eye was bought by an Indian merchant for 9,000 rupees. Cutting and polishing reduced its weight from 475 carats to 170 carats. It is now insured for 30,000 rupees.

ROYAL BAKING POWDER Absolutely Pure. This powder never varies. A marvel of purity, strength and wholesomeness. More economical than the ordinary kinds, and letters of credit issued to travelers, collect, items made throughout the United States, British America and Mexico, state, county and city warrants cashed. We offer patrons accommodations consistent with conservative banking.

BUFFALO BILL'S Story of the Wild West AND CAMP FIRE CHATS. Own Book—Written by Himself. Entitled Story of the Wild West AND CAMP FIRE CHATS.

AGENTS WANTED. Either sex, young or old, in every town to sell this most remarkable book already in the field and earning money. Act quick or the opportunity will be lost. You can easily make from \$5 to \$15 per day. To save time and secure an agency at once, send for a complete canvassing outfit. Illustrated circulars and extra liberal terms mailed free on application.

The History Company, 723 Market Street, San Francisco, Cal. \$500 Reward FOR AN UNCURABLE GOLDEN BALSAM. Le Richa's Golden Balsam No. 1 Cures Chancres, first and second stages; Sores on the Legs and Body; Sore Ears, Eyes, Nose, etc.; Copper-colored Blisters, Syphilitic Catarrh, discharges from the Uterus, and all primary forms of the disease known as Syphilis. Price \$2.00 per Bottle.

Le Richa's Golden Balsam No. 2 Cures: Tertiary, Mercurial Syphilis, Rheumatism, Pains in the Bones, Pains in the Head, back of the Neck, Ulcerated Sores Through Syphilitic Rash, Lumps and Contracted Cords, Stiffness of the Limbs, and eradicates all disease from the system, whether caused by induration or abuse of Mercury, leaving the blood pure and healthy. Price \$5.00 per Bottle. Le Richa's Golden Spanish Anti-Jade Cure for Gonorrhoea, Gleet, Irritation Gravel, and all Urinary or Genital disarrangements. Price \$3.50 per Bottle.

WILLAMETTE UNIVERSITY Graduates Students in Classical, Literary, Scientific, Normal, Business, Law, MEDICAL COURSES.

A Wonderful Discovery. Without medicine or surgery! A wonderful discovery! Sure prevention and cure of piles and several other disorders. Send for pills in P. O. order of 2 cent stamps and get information worth a thousand half dollars. Address: C. E. HARRIS, 1234 Front Street, San Francisco, Cal.

Established 1863! The Oldest and Soundest Between Sacramento and Portland. LADD & BUSH, Bankers, Iron Building, Salem, Oregon.

NEW ZEALAND INSURANCE Co. of N. Y. Fire and Marine. JOK. ALBERT, Agent, - - Salem, Oregon

Baltimore Fish Market! JUST OPENED. Fresh and salt water fish, poultry, game and oysters in their season. On Court St., opposite the opera house.

A. E. STRANG, No. 333 Commercial Street, SALEM, - - OREGON.

STOVES and RANGES Plumbing, Gas and Steam Fitting. Tinware and Artistic Metal Work a Specialty.

DR. JORDAN & Co.'s MUSEUM OF ANATOMY 751 Market St., San Francisco Admission 25 cents.

First National Bank SALEM, OREGON. W.M. LADUE, President. DE J. REYNOLDS, Vice-President. JOHN MOIR, Cashier.

GENERAL BANKING. Exchange on Portland, San Francisco, New York, London and Hong Kong bought and sold. State, County and City warrants bought. Farmers are cordially invited to deposit and transact business with us.

The Capital National Bank SALEM - - - OREGON. Capital Paid up, - - - \$75,000 Surplus, - - - - - 10,000

Northern Pacific Railroad. TWO FAST TRAINS DAILY! NO CHANGE OF CARS. SHORTEST LINE TO CHICAGO And all points East via St. PAUL and MINNEAPOLIS.

NEW RESTAURANT! MRS. A. C. LEABO Has taken charge of the W. C. T. U. reading room, and has started a first-class restaurant in connection with the same. For A GOOD MEAL Give her a call. No Chinese are employed. Everything about the establishment is neat and clean and in good order.

AUMSVILLE Is located in the midst of a good grain, fruit and stock country. For further particulars address: T. S. MADISON, Aumsville, Marion County, Or.

City Tax Notice. The Salem city taxes are now due and payable at my office with Williams & England. Taxpayers will please govern themselves accordingly.

GEORGE WILKINS' NEW BUTCHER SHOP On Liberty street, across the bridge in North Salem. All kinds of meats kept on hand.

For the Public Good. It is an indisputable fact that the hand-somest vestibule trains that are now run on the American continent are those on the Burlington route, leaving from Union depot in Denver, also St. Paul, immediately on arrival of all through trains from the west. The first and second class coaches are magnificent, the reclining chair cars suburb, the Pullman sleepers extremely luxurious, and as for the meals that are served in those palace Burlington dining cars—yum, yum. The next time you go east to Kansas City, Chicago or St. Louis, if you mention to the ticket agent that you want your ticket to read from Denver or St. Paul over the Burlington route, you will get it, and you will always be glad of it.

Educate For success at the CAPITAL BUSINESS COLLEGE, Salem, Oregon. Business, Shorthand, Typewriting, Penmanship and English Departments. Day and evening Sessions. Students admitted any time.

A Fortunate Druggist. Mr. Edwin W. Joy for many years and now a prosperous druggist on the corner of Stockton and Market streets in San Francisco, probably never dreamed of rivaling in wealth the medicine kings of the country. But various rumors having been floating around to the effect that he has struck it big, an Examiner reporter was detailed to unearth the cause, and after much difficulty unraveled the following story:

FOR MEN ONLY! POSITIVE For Lost or Fading Manhood! CURE Weakness of Body & Mind! Effects of Excess of Excess in Old Young Men. Address: THE MEDICAL CO., 307 N. 1st St., St. Louis, Mo.

ANOTHER SPLENDID GIFT! An Elegant Work of Art To every new subscriber or renewal for the Weekly Globe-Democrat! ONE YEAR, The Beautiful Engraving, "THE SCOTCH RAID," A group of cattle and sheep (by Rosa Bonheur). A companion piece of "THE HORSE FAIR," which was, until recently, the premium with the WEEKLY GLOBE-DEMOCRAT.

ONE DOLLAR. Subscribers desiring both pictures can have "The Horse Fair" for twenty-five cents extra. Postmasters and news dealers will take subscriptions, or remit direct to the GLOBE PRINTING COMPANY. Send for sample copy of paper.

As we send this paper by thousands over the whole length and breadth of the land, many people who know Salem by its reputation will be pleased with a little history of its various attractions.

The citizens of Salem are a very proud people—proud of the beauty and fame of their city. With 15,000 population, possessing large wealth, we enjoy all the modern advancements of our sister cities like Portland, Seattle and Tacoma and San Francisco.

Byars, Colver & Walton Surveyors & Topographers. Surveys, drafts, plans, maps and descriptions of lands, townships, and roads, ditches, streets, sewers, alleys, etc., made and finished at reasonable prices.

THE STATE FAIR Meets here annually and is a great success. It attracts thousands of people from all sections of the country. NO MALARIA HERE. This is one of those clean, pure Western cities where almost no malaria now exists.

COMING WITH US AND WE WILL DO YOU GOOD. Salem is a good place to live in and it is a good place to do business in. Any new branch of trade will prosper here for facilities are ample and competent help plenty.

PIANOS FOR RENT. Two good upright pianos for rent, also a first class organ for sale cheap for cash or on the installment plan. For information inquire of Professor Parvin at the Conservatory of Music or at his residence, 8-16-18

THE YAQUINA ROUTE. OREGON PACIFIC RAILROAD. And Oregon Development company's Steamship line, 225 miles shorter, 30 hours less time than by any other route.

SAILING DATES. FROM YAQUINA: Willamette Valley, Monday Sept. 11; Willamette Valley, Tuesday Sept. 17; Willamette Valley, Wednesday Sept. 23. FROM SAN FRANCISCO: Willamette Valley, Wednesday, Sept. 4; Willamette Valley, Friday Sept. 13; Willamette Valley, Saturday Sept. 21; Willamette Valley, Sunday Sept. 29.

Overland to California Southern Pacific Company's Line. THE MOUNT SHASTA ROUTE. Time Between Salem and San Francisco Thirty-six Hours.

PULLMAN BUFFET SLEEPERS. TOURIST SLEEPING CARS. For accommodation of second class passengers attached to express trains.

West Side Division, Between Portland and Corvallis: 7:30 a. m. Lv. Portland Ar. 6:20 p. m.; 12:35 p. m. Ar. Corvallis Lv. 1:30 p. m.

Through Tickets. To all points. "OUTH and EAST. For full information regarding rates, maps, etc., apply to the Company's agent, Salem, Oregon.

Oregon Railway and Navigation COMPANY. Columbia River Route. Trains for the east leave Portland at 7:45 am and 9:30 pm daily.

PULLMAN PALACE SLEEPERS. Free Family Sleeping Cars run through on Express trains to Omaha, Council Bluffs and Kansas City without change.

MARVELOUS MEMORY DISCOVERY. Only Genuine System of Memory Training. Four Books Learned in one reading. Great inducements to correspondence classes.