tic to which he is accustomed. In either case, the additional use of a suds-and-glycerine enema is desirable shortly before the sitting.

The examination should take place at a time as remote from a meal as is practicable, and the preceding meal should be partaken of sparingly with regard to liquids as well as solids. This preparation of the stomach is of especial importance when the left kidney is in question. By no means secondary in value to the especial preparation is the question of deliberation as to the diagnostic procedure. The patient should be prepared to devote from one to three hours to the sitting, so that as many exposures as are necessary may be made while the gastro-enteric tract is in the most favorable state. If there is, in the region to be examined, any co-existing or secondary pathological condition, resulting in pain or tenderness, anesthesia should unhesitatingly be produced. If ether be used, fire precautions should not be neglected. If respiratory undulations are to be avoided, chloroform is preferable. The bladder should be emptied just before the sitting, even if catheterization be required. Where a vesical calculus is in question, this is, of course, absolutely necessary, but it is none the less desirable in ureteral and lower renal cases, on account of the mechanical influences brought to bear on the abdominal wall, as a part of the modern technic.

Of the especial operative measures in these examinations, much has been written by painstaking Röntgenologists, and there is no need for repetition; suffice it to say that in procedures presenting such difficulties, the employment of especially constructed accessory apparatus, as above mentioned, makes for the best results in the hands of the majority of workers. Exposures should be short, on account of the possible slight discomfort to the patient caused by the application of this apparatus; such short exposures are rendered possible by the use of the modern modification of the Ruhmkorff coil and the vacuum tube.

In a consideration of the importance of proper physical preparation on the part of the patient, his equally important state of mind should not be forgotten. By assuring him of the painless and uninjurious character of the proceeding, the elements of apprehension and fear should be eliminated. In many instances, the cases which are the most difficult of management are those in which the patient, nervously over-excited by a procedure the nature of which he knows nothing, and the reason for which he knows but little more, is prone rigidly to contract his abdominal muscles on the least provocation. Rigidity through pain is, unfortunately, at times inevitable; rigidity through apprehension has no cause for being.

It must be appreciated that there are to be found certain cases of renal emergencies associated, possibly, with anuria, where such preparation cannot be undertaken. The Röntgenologist must be prepared to come in contact with such instances, and to compensate for the difficulties they present by especial painstaking care in ways

available. In them he often finds, however, a favorable condition of the bowels, produced by an exhibition of purgatives in the efforts to eliminate toxins, or as preparation for an anesthetic.

Statements have been made as to the various shadow-producing qualities of urinary calculi according to chemical composition and atomic weight. Realizing, however, the likelihood of a mixed chemical composition, it is the writer's belief that every suspected stone should be repeatedly and diligently searched for, and that, with proper preparation, apparatus and manipulative care, there are few which may not be found, regardless of the findings in the urinary sediment.

In these few words, therefore, an attempt has been made to emphasize the fact that what may amount to a simple set of instructions for the practitioner to give, and fully as simple for the patient to carry out, invariably becomes, when a trustworthy Röntgen diagnosis is to be made, a matter of the utmost importance.

THE SUMMER CLIMATE OF ORACLE, PIMA COUNTY, ARIZONA.

BY ISAAC W. BREWER, M.D., FORT HUACHUCA, ARIZ.

To the patient who has wintered in southern Arizona, there comes a time when the all absorbing question is, Where shall I spend the summer? For persons who can afford an expensive railway trip, Flagstaff, Ariz., or the stations in northern New Mexico or Colorado seem to offer the most attractions, but for those whose means are limited it is necessary to find a summer station somewhat nearer.

It may be taken as a rule that any point in Arizona which has an elevation of 4,500 feet or more will be comfortable during the summer, provided it is not shut off from the mountain breeze. In such locations the afternoon temperatures will occasionally exceed 100 degrees, but owing to the dryness of the air such temperatures are not felt as much as similar temperatures in a moister region. The direct rays of the sun are very penetrating, but their intensity is overcome by a very slight shade. The nights are always cool and comfortable.

Oracle is such a station. It has an elevation of 4,510 feet and is situated among the foothills of the Santa Catalina Mountains. The surrounding country is arid and very much like that seen around Tucson, but being a little more moist there is more vegetation. Here there are large oak trees that afford a welcome shade during the hotter hours of the day. The soil is porous and dries very rapidly after a shower.

At Oracle are located the Arcadia and Neal ranches, both making an especial business of providing accommodations for persons with tuberculosis. At each ranch there are cottages and tents, and the weekly charges vary from \$10 up. The management of these ranches endeavors to supply an abundance of good food, especially fresh eggs and milk. Most of the food supply comes from Tucson which is situated about forty

miles south, and with which there is communication by stage. The stage makes the trip in six hours but the distance can be covered by automobile in three hours.

The following tables give the available climatological data:

TABLE I. TEMPERATURE.

	Mean.	Highest Mean.	Lowest Mean.	Maximum.	Minimum.	Mean Maximum.	Mean Minimum.
April,	60	63	53	90	39	71	47
May,	68	72	64	102	32	81	56
June,	78	82	74	105	40	90	67
July,	80	85	78	102	57	92	71
August,	78	80	75	103	55	88	68
September,	74	77	71	97	48	83	64

	Mean Relative Humidity, Percent.	Average Precipitation.	No. Rainy Days.	No. Clear Days.	No. Partly Cloudy Days.	No. Cloudy Days.
April,	19	0.4	3	22	5	4
May,	19	0.3	2	27	3	1
June,	24	0.4	1	26	3	1
July,	33	2.3	7	18	9	4
August,	50	3.1	8	15	12	4
September,	38	1.6	6	18	9	3

TABLE II. SHOWING THE PERCENTAGE OF DAYS FOR EACH MONTH FOR THE PERIOD FROM 1901 TO 1905 THAT THE EXTREMES OF TEMPERATURE WERE BETWEEN CERTAIN CRITICAL POINTS.

	April.	May.	June.	July.	August.	September.
Maximum:						
Above 100	0	0	1	1	0	0
90-100	0	2	59	67	37	15
75-89	51	83	39	32	61	75
40-74	49	15	11	0	2	10
Minimum:						
Above 40	84	98	100	100	100	100
32-39	16	2	0	0	0	0

The mean temperature for the six months from April to September, which is the period covered in this paper, varies from 60° in April to 80° in July, falling to 74° in September. The greatest heat is in June and July when the mean maximum reaches to ninety and above, but there is a decided fall as soon as the rains become well established, and August is a comfortable month. The highest temperature recorded is 105°. During the five years from 1901 to 1905 the temperature was above 100° on but three dates. In July the maximum temperature is liable to be between 90° and 100° on 67% of the days. In August the number of days with temperatures above 90° falls to 37%.

The mean minimum temperature reaches 71°

in July and is above 60° during the other months excepting April and May. Temperatures below freezing point have been recorded in April and May.

The relative humidity rarely reaches 50% and during the summer months is generally below 40%.

The precipitation for the period amounts to 8.1 inches which is about three inches more than at Tucson. Nearly one third of the precipitation falls during the summer months. These rains are mostly in the shape of short sharp thunder storms occurring during the afternoon and are great factors in cooling the air. During the period under consideration there are, on an average, twenty-seven rainy days.

During the same time 68% of the days are clear, 22% partly cloudy, and 10% cloudy.

The climate of Oracle is similar to that of Fort Huachuca, where, during the past four summers, I have not found the weather unpleasantly hot.

While not so cool as Flagstaff, Oracle seems to be a desirable summer station for persons who have wintered in the vicinity of Tucson and are unable to make the journey to some distant resort.

Tucson people who have spent the summer there speak very highly of it and say it is much cooler than Tucson. The statistics published by the Weather Bureau seem to indicate that the difference between the temperatures at the two towns varies from 8° to 12°.

Clinical Department.

THREE CASES OF EXTENSIVE NERVE INJURY FROM REMOVAL OF CERVICAL GLANDS.

BY J. W. COURTNEY, M.D., BOSTON,
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THE operative handling of diseased anterior cervical glands is, as a rule, not a subject of deep surgical interest, and I make as my excuse for reporting the three cases of this sort, which came under my observation between April, 1904, and November, 1906, the exceedingly serious and startling nervous phenomena that followed in the wake of operation.

In all three of my cases the surgeon's incision was made along either the inner or the outer border of the sterno-mastoid muscle, but inasmuch as this primary incision is not, in my judgment, responsible for the nervous lesions, I propose, at the risk of going over well-known ground, to speak very briefly of certain aspects of the anatomy of the region in question.

With regard to the sterno-mastoid, I wish to recall that it is in relation below with the lower part of the common carotid artery, internal jugular vein, the pneumogastric nerve, the descending and communicans noni, the deep lymphatic glands, the spinal accessory nerve — which pierces its upper third — the cervical plexus, the occipital artery and part of the thyroid gland.

The cervical plexus is formed by the anterior