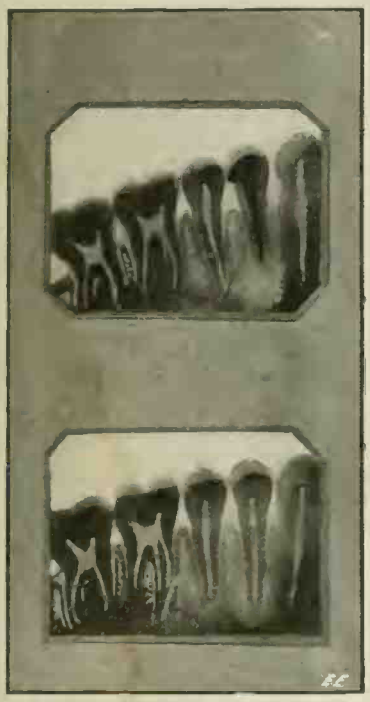
NEW DENTAL AND X-RAY MOVIES.

DR. E. L. CRUSIUS of New York city has announced that in co-operation with one of the leading film companies he had perfected a system for taking X-ray moving pictures which is expected to be of great service in treating injuries to the joints.

Among the pictures taken thus far are illustrations of the movements of the knee, ankle, and elbow. Dr. Crusius says that the photographs show not only the bones but the muscles, and that by moving a joint that has been injured and photographing the action of muscles and movements of bones it will be possible to find out just what parts have been injured and the treatment required.

A physician desiring to have the heart of his patient tested sends him to a radiologist to have an X-ray taken. The picture can show the size, position, and appearance of the organ, but it can not show the rising and falling of the heart beat. Again, the radiologist, during the examination, can take note of the manner of the beat, but he can not pass his observation on in its actual form. The same is true of X-rays of the lungs, stomach, intestines and other organs; than can not be shown *functioning*. An X-ray photo of the living stomach is shown herewith.

Thru the use of the new machine radiologists will be enabled to take pictures showing the actual continuous movement of the part of the body under observation. As soon as the invention is completed Dr. Crusius expects to offer it to the Government, which might use it for examining soldiers before entering the service and for examining wounded soldiers so as to ascertain the full extent and degree of their injuries.



The Dentists of To-day do Not Depend on Merely Looking at the Teeth—They Take Radiographs of Them, Which Often Show Defects That Effect the Patient's Whole Constitution.

Another phase of the motion picture X-ray is the part it may play in the educational world. Thru it a motion picture can be taken, for instance, of the path followed by a swallow of water or a mouthful of solid matter. It will present to view to the student and ordinary practitioner what up to the present time has been visible only to the eyes of the Roentgen-ray specialist.

By the old method of dental treatment, when only outward signs could be read, the dentist would treat the diseased tooth and unwittingly leave the abscess on the sound tooth to continue its destructive work until the tooth loosened or decayed.

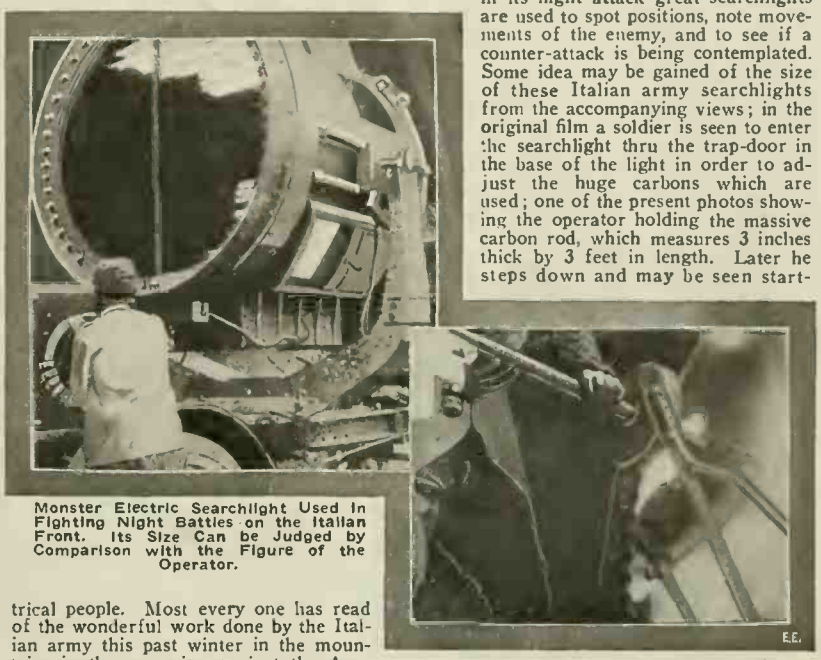
Malformations of this kind, and especially abscesses on sound teeth, cause neuralgia, rheumatism, headache, intestinal indigestion, enfeebled eyesight and general lassitude.

The necessary interest on the part of the physician today in the pathologic conditions of the oral cavity in teeth demands some study on the part of the medical fraternity. It is a great error to treat patients for all the ills on the calendar and ignore the teeth, a very prevalent source of constitutional disease, writes one authority. Of the two X-ray photos here reproduced, showing the teeth, one shows an alveolar abscess involving the root of tooth, while the other presents a complete root filling and the amputation of the same tooth. Many teeth now sacrificed may be successfully treated and give life-long service.

X-Ray Photo of the Living Stomach. A Bismuth Meal Is Given the Patient Before Taking Such Radiographs.

Monster Italian Searchlight

Recently we had the pleasure of seeing some very interesting official Italian war films, certain views of which are reproduced here as of especial interest to electrical people. Most every one has read of the wonderful work done by the Italian army this past winter in the mountains in the campaign against the Austrian army; of the almost insurmountable difficulties that have been met and overcome, and it is only thru the medium of the moving picture that one is able to grasp the significance of this vast work.



Monster Electric Searchlight Used in Fighting Night Battles on the Italian Front. Its Size Can be Judged by Comparison with the Figure of the Operator.

We see the Italians transporting guns over the mountains by means of long steel cables and aerial cars or bombarding the enemy during the night under the glare of a hundred powerful electric searchlights. In the morning following, the infantry takes up the charge to gain and consolidate the ground which has been cleared by the heavy shell fire, and it is during these scenes that the dangers the camera man is exposed to, with the hail of bullets breaking all around him as he merrily (?) turns the crank, are observed.

Not a small part is played in this drama by electricity. To assist the heavy artillery in its night attack great searchlights are used to spot positions, note movements of the enemy, and to see if a counter-attack is being contemplated. Some idea may be gained of the size of these Italian army searchlights from the accompanying views; in the original film a soldier is seen to enter the searchlight thru the trap-door in the base of the light in order to adjust the huge carbons which are used; one of the present photos showing the operator holding the massive carbon rod, which measures 3 inches thick by 3 feet in length. Later he steps down and may be seen starting the machine wherein he looks like the proverbial peanut on the watermelon.

The full significance of photography in the World War can only be realized in a small way from this brief resumé of course, and only when we have returned to peaceful pursuits again and witness all that has been preserved thru the medium of the photographic film and plate will we fully appreciate the invaluable records that we can pass on to posterity.

The American Army now in France is being equipt with all the latest electrical appliances. Searchlights mounted on telescoping towers are being supplied to our forces as fast as conditions at home will permit.