

profession, who are ever eager to grasp at new remedies and appliances that may assist them in their efforts to relieve diseased, suffering humanity. Among the foremost revelations of the Röntgen ray are those applied to normal anatomy, and the day is not far distant when a first-class Röntgen ray apparatus will, out of necessity, be among the paraphernalia of the dissecting laboratory of every foremost medical college and hospital of the universe. It might be argued that the student can study as well from an artificially arranged skeleton, but such is not the case, as no human hand can arrange the osseous structures to the same perfection as nature. By the Röntgen ray shadow-photograph or by the use of the fluoroscope, the precise relations of the bones to each other may be determined when the body is in the erect position or in any of the various attitudes. Development may be studied with great advantage, as developing bone may be easily distinguished from that which has already developed; likewise, the comparative anatomist is furnished an opportunity to study the osseous structures of the lower animals.

In the dissecting room the anatomical relations of the blood-vessels may be accurately determined by injecting into the vessels of the cadaver a metallic or nonpenetrable substance, which will show by opaqueness the precise course and distribution of the arterial circulation; the feasibility of this method may also be applied to the various cavities and organs of the dead body. In the living subjects the dimensions of the stomach may be determined by having the patient swallow ferruginous pills, or, better still, a metallic ball attached to a string or flexible handle, and a shadow-photograph taken and the fluoroscope used while the patient is in certain positions. Irregularities and congenital deformities of the osseous structures may easily be determined; also the heart, liver and the kidneys may be outlined. To the surgeon the Röntgen ray is as requisite as the mirror is to the laryngologist or the ophthalmoscope is to the oculist. In considering the diseases of the bony structures of the human organism, we find the ray indispensable in various pathological conditions, most of which I shall endeavor to bring before you. How often are we consulted when, owing to the extreme tenderness and extensive swelling, thereby causing inability to properly manipulate the disabled member, we are unable to accurately decide whether the case at hand is one of fracture, dislocation, a severe sprain with much laceration of the soft tissue, or perhaps all three; but now with the use of the Röntgen ray we may very easily determine the exact nature of the existing disability and treat our patient with confidence and not with the fear of a possible malpractice.