

I. *Renal Calculi*.—The treatment of renal affections by belladonna has been accepted by the profession for many years, and the efficacy of the drug in relieving renal pain is well established. The pain produced by renal calculi and renal colic is more effectively relieved by belladonna than by any other drug, opium not excepted—at least, that is my experience. I was led to infer that something more than mere relief of pain might be expected by considering the analogous condition of bowel obstruction, in which belladonna has proved so marvellously successful, and the essential point in the removal of renal calculi by belladonna consists in following out the analogy between the two cases. In cases of bowel obstruction we push the treatment far beyond the mere anodyne effects of the drug until the obstruction gives way. In cases of renal colic, we have been content when the agony has subsided. I contend that we have erred in thus stopping short of more decided results; and if the drug be administered sufficiently long, and in large enough doses, the entire removal of the calculus—first from the pelvis of the kidneys to the bladder, and then from the bladder, *per urethram*, often follows. I will not attempt to theorize on the exact physiological process by which the above results are brought about, either in the case of the bowel or in the case of renal passages; it seems, however, as if the drug combined in itself the power to relieve spasmodic contraction on the one hand, and produce peristaltic action on the other. Perhaps someone more fully acquainted with physiological therapeutics will enlighten us on this point. I must, however, proceed to substantiate the above views by quoting some cases in which such striking results were obtained as to establish the link of causation between the administration of the drug and the removal of the calculus. Let me quote three cases in point:

Mrs. E. had suffered for several months from repeated attacks of renal colic. During the last of these attacks I was called in, and found her in the agony of a severe attack. Belladonna was administered until decided toxic effects were produced, and the patient was relieved of her sufferings as soon as the drug began to show its physiological action on the eye and throat. It was then pushed until she was fully under its influence, and in a few hours the stone passed into the utensil with the usual satisfactory click—a lithic acid calculus, as large as a small almond. The next case was that of a young engineer, who had suffered long and severely from renal pain, with occasional attacks of true renal colic. He had been treated by an experienced practitioner without much relief. I advised the administration of forty drops of tincture of belladonna, to be repeated every hour, or every two