

of the arteries, and a diuretic; while the fifth, digitonin, is a direct antagonist of the others, being a cardiac sedative and relaxor of the arteries. The quantity and proportion in which these are found in different samples of digitalis leaves vary considerably, and, therefore, the actual strength and composition of infusions and tinctures prepared from different samples of the drug will vary. So that from one preparation we may get a heart-tonic effect and from another that of a heart sedative. Digitalin gives us the maximum of heart-tonic effect with a minimum of vascular contraction, while digitoxin is a very powerful vascular contractor; digitonin, on the other hand, being a cardiac and vascular sedative. Hyoseyamus contains two active principles—hyoseyamine, which is a cerebral stimulant and deliriant, and hyoseine, a cerebral sedative and narcotic. Ipecac has two active principles, emetine—an expectorant, and cephaline—an emetic and irritant; and Carthagena ipecac is always richer in cephaline than Rio ipecac. Jaborandi contains 6 alkaloids, the principal one pilocarpine, which is a powerful stimulant of the sudoriparous, salivary, and mammary glands. But sometimes the alkaloid jaborine will predominate, which has an entirely opposite effect. Nux vomica contains strychnine and brucine. Cinchona bark, who shall say how many, though we have practically discarded all now except quinine. And so I might go on to enumerate most of the vegetable materia medica to prove the unreliability, uncertainty, and want of uniformity of their galenical preparations. The chemist, pharmacist, and physiologist, however, have been at work, and have supplied us with many uniformly-acting agents, and plenty of data concerning their actions, which constitute real scientific knowledge. I refer to the various definite chemical compounds, alkaloids, and active principles of drugs, a large number of which is now well known and has been thoroughly studied. What is required is, that this knowledge should be applied in the ordinary practice of the profession.

Now, the first requisite in the rational practice of therapeutics is that we make as exact a diagnosis as is possible, using every means at our command to determine accurately every morphological or structural, and physiological or functional departure from the normal. There is no room here for "snap diagnoses." The man of the broadest culture and the deepest scientific knowledge should be the best diagnostician, not the specialist, who has too often a tendency to refer everything to some derangement of his limited sphere. Exhaust every means of getting at "the truth, the whole truth, and nothing but the truth," physi-