

give as much as half an ounce daily in divided doses before the result is attained. Cases of dangerous heart failure should always be treated according to the method sketched. It is very unscientific to expect the best results from any other way. No doubt 10 or 15 minims of the tincture several times daily will to some extent relieve an overtaxed ventricle; even rest in bed without any medication will at times prolong life; but the best results are only obtainable when absolute rest in bed is combined with digitalis in full doses.

There is a large group of agents which belong to the digitalin group which have lately attracted a great deal of attention. There is Scillain, which is the active principle of squills; Helleborein, which occurs in the various species of hellebore; Olean-drin, found in conjunction with digitalin in the common oleander; there is Apocynin, contained in Canadian hemp; Adonidin, found in the spring adonis; Convallamarin, in the lily of the valley; and lastly, Strophanthin. Now all these agents possess in common the property of slowing the heart and increasing the blood pressure. Squills has been used empirically for a long time as a diuretic and heart tonic. It enters into the composition of the still famous Baly pill, the other ingredients being digitalis and mercury. This is a remarkable combination, built entirely on empiricism long before the science of pharmacology was even dreamt of. We have here a combination containing two heart tonics, digitalis and squills, and a direct diuretic, mercury. It is only a very recent discovery that mercurials, especially calomel, have a direct diuretic action. It is a proof, if one were needed, how foolish it is to neglect the laborious acquired knowledge of our forefathers, call it empiricism if we like. Of the other agents mentioned, only strophanthin and adonidin need be referred to; the remainder we know little or nothing outside of the laboratory.

Strophanthin, introduced by Professor Fraser of Edinburgh, has now been in use about two years, and although all the reports are not confirmatory of a very marked tonic action, still we have sufficient evidence to enable us to say that it is a very valuable addition to the list of cardiac tonics. It has been found well