manufacturer's name, when prescribing such pills. We cannot be too careful, especially when using *quinine* pills, as so often life depends on the prompt action of this invaluable medicine in our malarial diseases. It is admitted by all, that our officinal pill is the most soluble, provided, the proper excipient is employed in preparing them, as licorice, or what is much better, pure glycerine. Next comes the sugar coated or compressed pills, each advocated by intelligent pharmacists, as being the most soluble. In my experiments I have found very trifling difference between the two, when the sugar coated pill was properly selected—the *manufacturer*, being an important consideration.

In a trial with *nine* different manufacturers I, have found *none superior* to Bullock & Crenshaw's of Philadelphia—who nearly twenty years ago introduced sugar coated pills to the profession in the United States. When they introduced these pills there was not a firm in Philadelphia, or the state of Pennsylvania, making them, and but one other on the Continent. Through all these long years these pills have been in the hands of all druggists, all over the land, and not a breath of suspicion has ever been whispered against their purity and reliability. No greater commendation could be asked for. These pills received, among others, the award of a Centennial medal, for superiority of finish and purity of ingredients, after a critical examination by medical men of ability and skill.

Undoubtedly a fair test of solubility would be dependent upon the varied conditions of the fluids or contents of the stomach, which cannot be obtained. We are, therefore, compelled to select a fluid as nearest approximating the average state of the dissolving powers of the organ, with a temperature of about 98° Fahrenheit, the acidity, alkalinity and digestive powers in average proportions.

After testing the solubility of all the ready-made pills before mentioned, I found from the samples furnished me, the sugar-coated pills most soluble, with conditions as above. Those used in the experiment were from those of Bullock & Crenshaw, W. R. Warner & Co., Hance Bros. & White, and W. H. Schieffelin & Co. There was really no material difference in the sugar-coated pills of the firms named—a small advantage in favor of the first one. I will give from the tabulated record I have preserved, the result of the Bullock & Crenshaw pill.

I will take the two-grain quinine pill (sugar coated) and the Pil. Cath. Co. U. S. P., as samples, (also sugar coated). In a one and a half ounce solution of water at 98 deg., acidulated—the quinine pill-coating came off in five minutes, and disintegrated in twenty minutes.

The *Pil. Cath. Co., U. S. P.*, was *fully* disintegrated in *forty* minutes.

In acidulated wated 98° F., and a small addition of pure pepsin (E. Shiefer) quinine pill was dissolved in twenty-six minutes.

The Pil Cath. Co. U. S. P., in a state of solution in twenty-two minutes,

In each experiment the vessel containing the pills and solution was kept in constant to-and-fro motion.

Other sugar coated pills of Bullock & Crenshaw yielded *relatively the same proportional* results, tested with similar solutions having in my possession the following, viz: Sul. Morphia 1-6 gr.; acid arsenious 1-20 gr.; pil. pulv. ext. coloc co. 2½ grs.; podophyllin ¼ gr.; pil. cinchonidia sul. 1 gr.; pil. phosphorus comp. (phosphorus 1-60 gr. nux vom. ½ gr.); pil. monobromated camphor 1 gr.

I carried the experiment of the B. & C. pills further to determine the quantities of ingredients in each. Of the quinine pills I dissolved several containing five grs. in a quantity of water, acidulated with a few drops of dilute sulphuric acid, from which the quinine was precipitated by water of ammonia, and agitated with ether, which was removed by a pipette to a weighed watch glass. The quinine was left in a stickey mass after evaporation, which I dried at a moderate temperature, and weighed—thus determining the amount of crystalized sul. quinine. The yield was the full quantity claimed.

The market is filled with spurious coated pills, especially of quinine—since the recent advance in price and great demand; and we should exercise the most scrupulous care to guard against impositions which are being attempted on the profession, as well as the community at large. There is no doubt but the most prominent disadvantage in the use of these pills is their *insolubility*. Some of these nine samples were very difficult to dissolve, only yielding to prolonged application of heat, even after disintegration, Those that did so readily dissolve, deserve great praise and credit, and should be remembered by every physician who reads this paper. The most persistent vigilance of the physician, not only as to sugar coated pills, but all pharmaceutical preparations, is the only remedy that will enable us to guard carefully against impositions of this character. The profession of the pharmacist will be yet more advanced and elevated to that perfect standard which is of such vital importance, when the products of the manufacturer come to be more frequently and critically examined. Testimony, at last, is the only way of arriving at the value of any of these pharmaceutical preparations.

[It is gratifying to know that this nice method of administering drugs can be relied upon, at least, in the case of those prepared by certain of our large and well known manufacturers in this line. We can substantiate the statement of our con-