

The occurrence of these calculi in the bile as well as in the urine is of some interest, as indicating their probable source. It is not probable that they should be formed in the urinary bladder from the true constituents of the urine; but the likelihood is that they must have a common origin both there and in the gall-bladder. Now Schmidt has recently endeavoured to show that oxalate of lime is secreted by the mucous follicles, and has established its existence in the mucous membranes of the gall and urinary bladders, and of the uterus. It is more than probable, therefore, that the pearls are formed in consequence of a morbid change in these follicles, whereby their oxalate is converted into carbonate of lime. If this be the case, it is possible that they may be sometimes found impacted in their follicles; and in any case in which they may be found loose in the bladder, it would be desirable to look for them there also.

I may observe, in conclusion, that true biliary calculi are very rare in the cow. Out of a considerable number of gall-bladders which I have opened, I have seen one instance only in which a thin tubular concretion occurred, lining the bile duct for about three-quarters of an inch, near the mouth of the gall-bladder. It consisted of cholepyrrhin.

ARTICLE IV.—*Note on a Camphor and Chloroform Mixture.* By T. and H. SMITH, Chemists, Edinburgh.

THE great difficulty, or rather the utter impossibility, of administering camphor in a state of solution in doses of sufficient potency, has been long felt by the profession to be a serious evil. The form of pill, which forces itself on the physician as the only mode of giving large doses of this medicine, is objectionable in many cases, and in others altogether inadmissible. The camphor, being merely in a state of mechanical division, on being set free in the stomach, from its extreme lightness quickly separates and floats about, thus producing in many cases much local irritation in that organ, instead of soothing or arousing the general system.

We have, therefore, much pleasure in laying before the readers of the *Monthly Journal* a formula for exhibiting camphor in doses of almost any amount of strength—certainly as large as any case can require—and that in a state of perfect solution: thereby allowing of a nice adaptation of the dose to the circumstances of each case.

The formula is as follows:—Three drachms of solid camphor are dissolved in one fluid drachm of chloroform. This is, perhaps, one of the most remarkable cases of solution the whole range of chemistry presents to us. The solution is most *rapid and complete*, and the bulk of the liquid is now increased from one to fully four fluid drachms. This solution, rubbed up with the *yolk* of one fresh egg, may be formed into an extremely elegant emulsion by the addition of water, without the slightest separation of the camphor

or chloroform; in fact, no separation of any kind takes place. If to the proportions given above as much water be added as to make a four-ounce mixture, each teaspoonful of the mixture when formed will contain about five and a half grains of camphor, and about two minims of chloroform. The capability of the formula being varied, so that either the camphor or chloroform may constitute the predominating ingredient, must be quite obvious. This mixture can be administered in any ordinary vehicle, such as water, without the occurrence of any separation; indeed, the mixture is as readily and completely effected as cream with tea or coffee. We have tried the effect of several medicinal substances on the mixture. With none of them has any separation been caused.

A weak saline solution, composed of common salt, phosphate of soda, and an alkaline carbonate, mixed readily, as well as a solution of muriate of morphia and sulphate of zinc. With the volatile alkali and acid liquids—such as a weak solution of acetic and muriatic acids—the mixture seems to become more intimate and stable. The mixture with ammonia has stood since its preparation—now fully a week—without any separation. With water alone, however, the chloroform solution of camphor separates in a few days, but they readily unite again when slightly agitated. The solution of camphor in chloroform, although insoluble in water alone, appears in this mixture to be in as complete a state of mixture as the butter in milk when newly drawn from the cow.

It now remains with the physician to ascertain the therapeutic value of the formula. We hope that by its means our knowledge of the action of camphor as a remedial agent may become more full and precise than hitherto.

ARTICLE V.—*Observations on Gunshot Wounds, made in Paris during the Summer of 1848.* By EDWARD WATERS, M.D., F.R.C.P., Edinburgh, formerly Senior President of the Royal Medical Society of Edinburgh.—(Continued from p. 264.)

TREATMENT OF FRACTURES OF THE EXTREMITIES IN CONNEXION WITH GUNSHOT WOUNDS.

b.—Treatment and Apparatus.

DR KIDD of Limerick, in a communication to the *Medical Times*,¹ alluding to the treatment of the wounded in the Parisian hospitals, writes—"The surgery in France is simpler and better, I think, than in our own country: this is what first strikes you going round." With whatever justice this remark may apply to the hospitals he refers to, its groundlessness with respect to the practice of the Edinburgh school is undeniable. Ever since the advent of Syme and

¹ *Medical Times*, August 26, 1848.