onward, like a wedge which distends the wound for itself, and does so in the most advantageous manner, since it plugs the wound in all its parts, not allowing it to open anywhere further than is required for its own transit.

On the whole, I consider that, by the manœuvre here recommended, the operation has become much easier, and an advance has been made towards its more general adoption. In principle, I would have no objection to the first presentation of the margin of the lens being secured by a gentle slide-manœuvre, assisted by counter-pressure with the steadying forceps, whereupon the evacuation might be farther proceeded with after the present plan. Since, however, the pressure upon the lower half of the cornea is always equal to the occasion, the complicated course of a successive resort to both manœuvres does not appear to me to imply any material advantage.

Berlin, May 12th, 1867.

ON

THE NEW FRENCH CODEX.

By J. BIRKBECK NEVINS, M.D. Lond., Liverpool.

In the able critique upon this work published in these pages on 2nd February last, Mr. Squire dwelt upon those features which were most striking in a pharmaceutical point of view. In the following remarks, we shall consider it with reference chiefly to those points which are important to a prescriber or to a student of materia medica.

The first circumstance that affects the prescriber is the unwieldy size of the volume; which is so bulky, in consequence of the wide margins and waste paper, as not to admit of being held in the hand. It can only be consulted when laid open upon a table with plenty of unoccupied space. The next circumstance is the hopeless confusion in the arrangement, which, however, is stated in the preface to be upon the "methodical principle"; but the method, whatever it may be, is neither alphabetical, chemical, pharmaceutical, nor therapeutical, according to any system known in this country. As an illustration of the difficulty of reference, from the absence of alphabetical arrangement, we may take the tinctures, which run in the following order: Gentian, Quinquina, Nux Vomica, Cinnamon, Aloes, Castoreum, Saffron, Benzoin, Iodine, Soap, Camphor, Aloes comp., Vulneraire. At the letter V, we naturally think that we are approaching the end of the tinctures; but the next page introduces us to Balsamic Tincture, Jalap, Absinthe, Opium, then two Laudanums, and the tinctures close with "Gouttes Noires Anglaises." This is fairly a representation of the whole work.

In the classification, so far as it might be based on chemical principles, we have, in the first chapter, the following order: Oxygen, Sulphur, Chlorine, Charcoal, Silver, Iron, Tin, Bismuth, Antimony, Mercury; but this order would appear to be accidental, for, in succeeding chapters, Antimony and Mercury come before Iron; and other irregularities are so frequent as to show that the order is based upon no chemical principle.

In the pharmaceutical arrangement, the different classes of preparations occur in the following order: Vegetable acids, then vegetable bases, next their salts, soaps, pyrogenic products, artificial mineral waters, simple powders, oils and fats, watery preparations (infusions, decoctions, etc.), alcoholic prepara-

tions, wines, beers, medicated oils, distilled waters, volatile oils, alcoholic preparations, syrups, compound powders, fatty preparations (ointments, etc.), and so on.

As a Codex or Pharmacopœia does not profess to teach therapeutics, it implies no blame to say that there is no attempt at a therapeutical arrangement.

Passing from the defects of arrangement, which are partially obviated by a full index, we pass to the materia medica, which is very extensive, containing twice as many articles as the *British Pharmacopœia*; and the most striking feature in it is the very great number of indigenous plants compared with those present in our own *Pharmacopœia*, being at least eight or nine to one. Another noticeable feature is, the close resemblance in properties of many of these substances. The Preface to the Codex says that its compilers had to make provision for the great extent of the country; from which we infer that it has included plants of similar properties, some of which may be abundant in one part of the country and others in another, so that every part of the empire may have an authoritative sanction for its home-produce.

The natural orders to which this large materia medica belongs are not without interest, as they differ widely from ours. Thus, *Umbelliferae* supplies eight or ten articles in the *British Pharmacopœia*, but nearly thirty in the Codex.

Compositae furnishes us with half a dozen, but the Codex with nearly forty; and this is the more striking, as the medicinal properties of this order are not considered by us as well marked.

Labiata yields four plants for our *Pharmacopœia*, and nearly ten times as many for the Codex.

Ranunculaceae furnishes a single article to us, and eleven or twelve to the French.

Rosaceae supplies us with half a dozen, and the French with about a score of remedies.

Ferns, Mosses, Algae, etc., furnish about half a dozen to our *Pharmacopœia*, and nearly twenty articles for the Codex.

And, without dwelling too long upon this part of the subject, we may add, that many orders which we scarcely notice, such as *Scrophularineae*, *Chenopodiaceae*, *Boraginaceae*, *Malvaceae*, and *Eriaceae*, supply numerous contributions to the French materia medica.

In running the eye over the individual plants contained in the materia medica of the Codex, we are struck by its strong general resemblance to an herbalist's list; for in the *Labiata* we have Wood Betony, Bugle, Balm, Catmint, Horehound, Gervander, Ground Ivy, Dead Nettle, Marjoram, and Sage.

In the *Compositae*, we find six different kinds of Wormwood, Arnica, Hemp Agrimony, three Burdocks, Centaury, three Camomiles, Blessed Thistle, Knapweed, Millefoil, Groundsel, Coltsfoot, and Golden Rod.

In *Boraginaceae*, there are Borage, Alkanet, Comfrey, Houndstongue, Lungwort, and Bugloss.

In *Scrophularineae*, are two or three Veronicas, Eye-Bright, Hedge Hyssop, and Scrophularia, as well as Digitalis. And the description might be indefinitely extended.

Another feature in which the Codex differs from our own *Pharmacopœia* is, that it marks with a star a number of articles which ought to be kept by every pharmacist; and an examination of this list is interesting, as shewing the direction in which French prescribing tends compared with our own. The following list is very far from complete; but is insufficient for the purpose of illustration.

Wormwood—Several kinds.

Aconite, both the roots and the leaves; the latter being the part used for making the tincture.

Alkekengi (*Physalis*, Winter Cherry)—An important ingredient in a popular gout pill. There are several preparations of this plant in the Codex.

Aloes—*Cape* in preference to any other.

Serpentary—There are several preparations, and it is evidently considered a valuable drug.

Asparagus—A valuable diuretic.

Inula—A diaphoretic, stimulant tonic; only just now excluded from our own *Pharmacopœia*.

Burdock—Diuretic; several kinds and preparations.

Mullin—Said to be valuable in menorrhagia and internal hæmorrhages from mucous membranes.

Canadian Maiden Hair—Diuretic and expectorant; many preparations contain it.

Castoreum—This would appear to be in great repute, from the number of preparations in the Codex.

Blessed Thistle—Bitter stomachic.

Devil's Bit Scabious—Its diaphoretic, expectorant, and other properties are so numerous and valuable, that the devil became envious that man should possess such a treasure, and was eating it up when he was interrupted, before he had time to bite off more than the end of the root.

Triticum Repens (*Chiendent*)—Substitute for sarsaparilla as a purifier of the blood; lately extolled by Dr. Thompson in irritable bladder.

Comfrey—Used in leucorrhœa and internal hæmorrhages.

Butcher's Broom—Used in dropsy and lithic acid urine, and struma; highly esteemed.

Fumitory—Diuretic; excellent against jaundice and visceral obstructions.

Ground Ivy—Acts upon the mucous membrane of the lungs, kidneys, and bladder; used in chronic cases.

Menyanthes (Buckbean)—Very valuable tonic and diuretic in atonic anasarca.

Common Polypody—Purgative and diuretic.

Tormentilla—Only now omitted from our own *Pharmacopœia*; an invaluable astringent article of food in chronic diarrhœa of sickly strumous children.

Hartstongue—Astringent, and at same time deobstruent of liver.

Common Speedwell (*Veronica*)—Diuretic and emmenagogue.

The above list illustrates, not unfairly, the general character of French prescribing, so far as can be gathered from a study of the Codex. Of course, it will not be understood that such remedies as Cinchona, Rhubarb, Jalap, and the like, are either undervalued or overlooked. We have assumed that articles of such undisputed value occupy their proper position of importance in the Codex, and have merely pointed out such matters as are slightly esteemed or altogether neglected in our own *Pharmacopœia*.

Of the more potent remedies, it is curious to observe that *Digitaline* is ordered to be kept in all shops—a position of honour to which it is not yet entitled by professional estimation in this country; and that *Codia* also is placed in the same list. It is difficult to account for the different estimation in which this article is held in France and in England. English experience of it has been so far disappointing that it has almost, or entirely, gone out of use; whilst in France it is highly valued as an efficient soother of irritable cough, and free from the liability to excite feverishness and thirst, which sometimes follow the employment of opiates or of morphia.

Chronic Acid, which has not yet found its way into the *Pharmacopœia Britannica*, and Acetic Ether, which is almost unknown as a medicinal agent except in this town (Liverpool) and its neighbourhood, are

ordered to be kept in all shops; as are also Potassio-tartrate of Iron, which we think well worthy of the honour; and a substance totally unknown in English medicine—viz., Borico-tartrate of Potash, which possesses the synonyme in the Codex of "Soluble Cream of Tartar." We are not able to give any opinion of its title to such a distinction, as we are without experience of its effects.

The following list, as a whole, is not ordered to be kept in every shop, though some of its contents are. To our apprehension, they might all with safety be omitted from the Codex, which would sustain small loss in parting with them. Dried Vipers, Red Coral, Oil of Eggs, Crab's Eyes, Calcined Oyster-Shells and Calcined Egg-Shells, Red Currants, Gooseberries, Raspberries, and many others.

Of the mineral materia medica, the substances calling for notice which are ordered to be kept in all shops, are Oxalic Acid (for which the reason is not apparent) and Chloride of Sodium, Common Salt. It is curious to observe the importance that appears to be attached to this substance. We are so much accustomed to its purity and cheapness, from the abundant supply yielded by the salt mines in Cheshire, that we scarcely think of it as an article requiring special purification. But, in the Codex, half a page is occupied by directions for its purification, and another half-page by a description of its characters and by tests for its impurities. In France, it is made to a great extent by the evaporation of sea-water, and is, therefore, liable to contain sulphates and salts of calcium and magnesium.

Two forms of Iron filings, differing only in the fineness of the powder, and also Iron reduced by hydrogen to the metallic state, are ordered to be universally kept; which shows a preference for iron in the metallic state that is not yet general in this country. Lactate of Iron is also to be kept in all shops—a preparation not yet admitted into the *British Pharmacopœia*; and this substance furnishes an illustration of the excessive minuteness of some of the directions in the Codex and the inexplicable omission of others. Thus, as above stated, an entire page is devoted to the purification and characters of common salt; but, although there are several preparations in the Codex of Lactic Acid, as well as the acid itself, and some of them are to be universally kept, there is no description of any means for obtaining the acid in the first instance. Half a page is devoted to directions for powdering lump-sugar; but when we turn to powdering cantharides we read, "The operator must omit no precautions to save himself from the powder of the cantharides." More than a page is occupied with directions for making Sulphuretted Hydrogen, and two pages are devoted to instructions for making *Anhydrous Hydrocyanic Acid*, in the course of which the operator is desired to pour this anhydrous acid from one vessel into another in order to weigh it, previously to dilution with the proper quantity of water; and the only precaution which is directed in this fearfully dangerous operation is, "Stopper the bottle immediately, so as not to be exposed to the vapour of the acid during the weighing."

Crystallised Boracic Acid is to be kept every where; and a double salt of Chloride of Gold and Sodium. The former substance enters into a number of preparations besides borax, and appears to be a favourite French drug; whilst the latter is said to be chiefly used in secondary syphilis, by being rubbed into the patient's gums.

Cyanide of Potassium, a salt very liable to decomposition, and Percyanide of Mercury, of which we have no medicinal employment in this country, are to be kept; and light Calcined Magnesia is also to be

always on hand, whilst the Carbonate is left optional with the pharmacist.

Potassium Permanganate is introduced into the Codex, but is left to find its own way into general favour; whilst Crystallised Acetic Acid is to be kept in all druggists' shops.

The foregoing remarks embrace the earlier portions of the Codex, containing the preface, the *matéria medica*, and the uncompounded drugs. Our future observations will relate to the compounds and other matters of interest in this work.

CHANGES IN THE SHAPE OF THE FŒTAL HEAD PRODUCED BY LABOUR.*

By J. G. SWAYNE, M.D.,

Physician-Accoucheur to the Bristol General Hospital; and
Lecturer on Midwifery at the Bristol Medical School.

THE change of shape which the foetal head undergoes during natural labour has long been well known to accoucheurs, and has been justly considered to be a wise provision of Nature for facilitating the process of parturition. By means of this change, the head becomes moulded and adapted to the passages through which it has to pass; and to so great an extent is this possible, that, as a general rule, there is no presentation of the head, which, when other things are favourable, will not admit of delivery by the unaided efforts of Nature. In a paper which I communicated to this Branch some years ago, I laid great stress on this point, and showed how favourably it operated in lessening the difficulty of what are called occipito-posterior positions of the head. In ordinary head-presentations, considerable alteration takes place in the shape of the head in all cases where it has been subjected to much pressure and the labour has been much retarded; nor is this alteration of shape usually incompatible with the safety of the child. The shape of the head becomes elongated; for, as Dr. Tyler Smith remarks, "as a general rule, it may be laid down that, in ordinary presentations, the longer the head remains in the pelvis, the more ovoid will it become, always provided that the pelvis is not absolutely deformed." M. Baudelocque has noticed at some length all these changes; and his description is so accurate, that I may quote it at length. He says: "The head, pushed forward for hours together by the natural agents of delivery, becomes insensibly softer and more pliable, and at length acquires the necessary dispositions for moulding itself to the form of the pelvis. If it then flattens in one direction, it really lengthens in another; the form of the cranium only changes, and its cavity contracts so little that the brain is scarcely affected by it. I have taken children whose heads seemed to have lost nine or ten lines of their natural thickness in passing the superior strait, and seemed to have lengthened in the same proportion without comprehending the tumour formed on the scalp before the posterior fontanelle. The heads of several of these children were above six inches and a half and even seven inches long, from the chin to the top of the aforesaid tumour; while the thickness from one parietal tubercle to the other was but two inches and a half, or two and three-quarters in some, and three inches in others. In a few hours after birth, the heads of these children spontaneously recovered

the thickness which they had lost in delivery, and lost the length which they had acquired by it." M. Baudelocque then adds in a note: "M. Solayres informed us one day in his lectures that he had taken a child the evening before whose head, at the moment of birth, was eight inches long all but two lines, measured between the points indicated above; while it had preserved but two inches, five or six lines in thickness. The day after, the head had recovered its usual dimensions."

In the *Obstetrical Transactions* for last year, there is an interesting paper on this subject by Dr. Robert Barnes, containing measurements of heads which had been much altered in shape by difficult labour. Dr. Barnes states that the deformation of the head is threefold; viz.: 1. Elongation or conification; 2. A symmetrical flattening of one side; 3. Twisting of the conified portion upon its axis. He states also that, as a general rule, "the part of the fetus which presents in the axis of the brim, which has to lead the way, so to speak, for the rest of the head, undergoes more or less bulging out or elongation." From a number of very accurate measurements, Dr. Barnes draws the following conclusions.

1. The ordinary dimensions of a standard head at term, not deformed by labour, are:

	Inches.
Fronto-occipital diameter	4½ to 5
Occipito-mental	5¼ to 5½
Greatest transverse (between parietal tubercles)	3¾ to 4
Lesser transverse diameter (between the ears)	3¼

2. In protracted labour, with vertex presentation, in a pelvis normal or nearly normal, the above dimensions are altered to:

	Inches.
Frontal-occipital diameter	5½ to 6
Occipito-mental	6½ to 6¾

The greatest transverse diameter is often merged in the lesser; that is, the parietal bones are compressed, so that the interparietal diameter becomes the same as the interauricular, which is fixed.

3. In a case of tedious labour, with the head in the third position of Nægelé, the elongation was greatest in the bregmato-mental diameter; i.e., the elongation more nearly approached the vertical diameter of the head than the longitudinal diameter.

4. Elongation of the head is due sometimes entirely, and often greatly, to the pressure the head experiences in passing a rigid, imperfectly dilated cervix uteri. Hence the conical elongation is most marked in primiparæ. Hence, also, one reason why the forceps is so much more frequently called for in first labours.

5. In turning, in contracted pelvis from projecting promontory, the transverse flattening of the head is much exaggerated; in extreme cases, the moulding capacity of the cranial bones being exhausted, space is gained by indentation or even fracture of the bone in contact with the promontory; the lateral or transverse compression is compensated by slight mento-occipital elongation—i.e., this diameter increases a quarter or half an inch, and also by fronto-occipital elongation.

In occipito-anterior positions of the head, the usual tendency, as mentioned above, is to elongate the head in the direction of the occipito-mental diameter, or rather a diameter a little in front of this. The elongation is most marked, and most exactly corresponds to the occipito-mental diameter, in the occipital variety of head-presentation, or that variety in which the posterior fontanelle presents, instead of the ordinary presentation of the posterior superior

* Read before the Bath and Bristol Branch.