

THE PRESCRIBING OF PROPRIETARIES, ES-
PECIALLY PROPRIETARY MIXTURES.SOLOMON SOLIS COHEN, M.D.
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The manufacturers of medicinal preparations that ought not to be used are adepts in the twisting of language. When the fight against the use of nostrums was renewed some fifteen or twenty years ago, they tried to confuse "nostrums," *i. e.*, secret remedies, with "proprieties," *i. e.*, preparations legally or by custom private property; and even the trustees of the American Medical Association were, for a time, thus deceived. Just as this confusion is being cleared up, it does not seem wise for those physicians and pharmacists who desire to bring about the scientific use of medicines, to introduce it again by denunciations launched indiscriminately against two or three different classes of preparations.

Hence, at a recent meeting at which this subject was discussed, I emphasized again the distinction for which I have been fighting, lo, these twenty years. I protested against the unfairness of describing as "nostrum-users" physicians who prescribed proprietary medicines of known composition. This, however, does not warrant the misapplication of my remarks and their perversion into apparent approval of what I have always condemned—namely, the routine use of ready-made mixtures, whether proprietary or not.

The chief objection to these, as I have repeatedly pointed out, does not consist in the fact that they are proprietary, but in the fact that they are ready-made. As I have said before, and frequently, "one mixture can no more fit the pathologic conditions in every patient, than one coat can fit the curves of every back." Even when the same ingredients are associated, which is not always wise, the proportions are usually to be varied to suit the different indications—not only of different cases, but of the same case at different times. In other words, a ready-made mixture is usually, as regards the individual patient, a misfit. Either it contains unnecessary ingredients, or it omits a necessary ingredient, or the doses of the respective ingredients are unbalanced; there is too much of one, too little of another, and proper increase or decrease of dose with the progress of the case is impracticable.

These considerations apply as forcibly to a Pharmacopeial or National Formulary mixture as to any other.

Nevertheless the U. S. Pharmacopeial and N. F. formulas for mixtures are capable of considerable scientific usefulness. They are lessons in therapeutic and pharmacologic association. They teach by example how incompatibilities may be avoided or overcome, and how medicines may be suitably flavored and colored—a matter of some practical importance, for a palatable and slightly potent will be swallowed when a nauseous and nasty looking dose will be rejected.

For this reason the National Formulary should give original formulas and not imitate proprietary preparations, many of which are highly unscientific. The "elixir digestivum comp." is a case in point. There is no advantage in mere substitution of one unscientific preparation for another, even if the N. F. mixture be equally silly and objectionable with its exemplar.

Basham's mixture (*Liquor ferri et ammonii acetatis*) and Dover's powder (*Pulvis ipecacuanhæ et opii*) are classics. Yet it is probable that the proportions in even

these could be varied in individual cases with benefit to patients.

If, however, the U. S. P. and the N. F. would publish *skeleton formulas*, giving a range of quantities in which certain medicinal ingredients can elastically be associated—thus indicating the necessary pharmacologic expedients, but leaving the exact dosage to be ordered by the prescriber for the needs of the individual patient at the particular time—we should have the advantages, without the disadvantages, of such standard mixtures.

Three things would be necessary:

1. A standard (*i. e.*, average) formula, to be dispensed on name without specification of quantities.

2. The indication of an optional range of variations possible, without destroying the pharmacologic value of the formula.

3. A brief statement of the pharmacologic necessities of the particular mixture, as a guide to the proportioning of doses.

For example, let me take the formula of a preparation not in the Pharmacopeia or N. F., which I have employed very much in rheumatic cases during many years, and have repeatedly published. It is known in the house pharmacopeias of the Jefferson Medical College Hospital, the Philadelphia Polyclinic Hospital and the Philadelphia General Hospital as *Mistura ferri salicylata* (Salicylated iron mixture). A standard mixture is dispensed under this title which contains 0.5 gm. of natural sodium salicylate and 0.5 c.c. of tincture of ferric chlorid to the teaspoonful, estimated at 4 c.c. Sometimes in prescribing it one wishes to increase or to diminish the iron relatively to the sodium salicylate, or vice versa. We know that this can easily be done within a range of 30 per cent. In order to prevent the precipitation of iron salicylate, two pharmacologic expedients are necessary—the use of a slightly acid ammonium citrate solution in the vehicle (approximately half, *i. e.*, 2 c.c. in the 4 c.c. dose), and the addition of the iron last, drop by drop, with continuous stirring, up to the required quantity. To permit any considerable increase in the iron there must be proportional increase in the citric acid content. It is also better made when a few drops of glycerin are used in each dose, and it can be flavored appropriately with a natural methyl salicylate. The standard formula is the result of experiment as to the best pharmacologic proportions, and in this the active ingredients are as stated, with suitable quantities of glycerin, solution of ammonium citrate and oil of birch or oil of wintergreen. When no other direction is given this is dispensed.

It can be varied in two ways.

1. The best way is to write the quantities of active ingredients in full, and of the vehicles, flavor, etc., in blank, or with a *q. s.* Thus:

	gm. or c.c.	
R. Sodium salicylate (true).....	2	gr. xxx
Tincture of ferric chlorid.....	2 20	m. xxxvi
Oil of wintergreen..... (q. s.)		
Glycerin..... (q. s.)		or
Citric acid..... (q. s.)		
Solution of ammonium citrate (B. P.)		
.....q. s. ad 32		flʒi

2. The easiest way is to write:

R. Salicylated iron mixture with 10 per cent. increase of iron, 32 c.c.

Similarly, if the U. S. Pharmacopeia should state regarding Basham's mixture the range within which the proportions of tincture of chlorid of iron and solution

of ammonium acetate could be varied, the prescriber could so order, leaving the pharmacist to adjust the acetic acid to the requirements of the prescription.

So, too, the National Formulary could provide that, for example, its elixir of iron, quinin and strychnin phosphate should contain the present standard quantities of these three ingredients when the physician makes no specifications of quantities; and, when specified, the exact quantity of any one or all of them that the prescriber writes for. Thus a modified prescription might read:

R. Elix. ferri (gr. i), quin. (gr. ss) et strych. phos. (gr. 1/120)
[These quantities to dose.] $\mathfrak{z}\text{iv}$

Sig.: One teaspoonful in water, t. d. p. c.

Or any other variation desired could be indicated similarly.

This would be more work for the prescriber as well as for the dispenser, but it would check the tendency to routine, and thus the resort to proprietaries; for thereby we get away from the ready-made formula which is the real ethical objection to proprietary mixtures, otherwise unobjectionable; and which affects N. F. preparations equally. If, however, N. F. preparations become adjustable, while proprietaries remain rigid, the superiority of the former is at once evident.

There are many other objections to the use of proprietary mixtures, the principal three of which may be summarized as follow:

1. They are not subject to standard regulation and may arbitrarily be varied.

This is less pertinent now that the pure food and drug act requires a guarantee from the manufacturer, but is still valid to a degree.

2. They profess to some degree of secret excellence, some mysterious method of collocation, or perhaps of flavoring. Such pretences are usually false, and not to be encouraged when true.

3. Perhaps the most serious objection—and from the viewpoint of pure science it oversteps all others—is that proprietorship makes unbiased discussion and honest reports difficult. This applies not only to mixtures but to “controlled” drugs in general. Paid communications are so notorious and every manufacturer or vendor of a controlled medicine does so much to put forward the good side of the remedy and to keep in the background all facts against it, that even sincere and scientific reports are often regarded with undeserved suspicion and many clinicians are absolutely deterred from praising or even mentioning useful articles, because of such control. Abolition of proprietorship would advance science, and while it would drive out many useless preparations now much-vaunted, it would increase the use made of worthy ones and make it feasible to discuss them as impartially as we do quinin or mercury.

In addition, it is possible that controlled medicines may not conform to published descriptions or formulas. This, however, takes them into the category of criminal frauds, and has no connection with proprietorship or any other question we are here discussing. The dispensing of chalk for quinin by a thievish manufacturer or retailer does not affect the legitimacy of the prescription of quinin; and the similar predatory sale or dispensing of thyroid extract or brickdust for kidney substance does not affect the legitimacy of the use of kidney substance.

There is another kind of proprietorship, however, that I accept. It is a worthy one, and the only worthy one. When it is known that a certain official or un-

official drug varies much in quality as found in the market, and that certain manufacturers or dispensers put forth a trustworthy product, then I do not hesitate to specify the personal or firm name of such a manufacturer or dispenser. I know, for example, that A. and B. and C. are careful to get the best digitalis, or ergot, or belladonna and to prepare it properly. I know that X. and Y. and Z. get the cheapest stuff they can; or sail as close as possible in every way to the limits of the law; or are generally undependable. I do not hesitate to specify A's or B's or C's digitalis or ergot or belladonna, in order to avoid getting X's or Y's or Z's.

This is not a mere possibility or fancy picture; it is a sad reality. Many patients have been suffered to die through the administration of X's or Y's or Z's inferior digitalis; while ergot and cactus are notoriously variable, and some physicians even discard cactus altogether because of the great difficulty of getting a preparation that can be depended on. The same remarks apply to dispensing pharmacists. I know that E. and F. and G. are careful alike in purchasing and in compounding, to get the best and do the best. I know that P. and D. and Q. are careful to get the cheapest drugs, or are slovenly in putting up prescriptions. I tell patients to go to E. or F. or G. and to keep away from P. and D. and Q. This, and this only, is the proprietorship—proprietorship in individual good name of person, firm or corporation, that I defend and specify; and any application of any alleged remarks of mine in any other sense, is false and misleading.

There is another form of proprietorship in which I am forced unwillingly to acquiesce, although I do not like it. It is the monopoly of certain non-secret products given by patent and trademark. This is wrong; but so long as our United States laws remain as they are, the wrong can not be remedied.

If we who are striving for the correction of old errors are not careful to keep the question clear, we can not expect that those whose interest it is to confuse matters will refrain from doing all they can to “darken counsel by words void of meaning.”

Let me, therefore, summarize:

1. Ready-made mixtures of rigid formula, secret or known, proprietary or public, are objectionable.

2. The National Formulary and the U. S. Pharmacopoeia should make all formulas of mixtures optionally elastic.

3. Such proprietorship as is expressed in the name of an individual pharmacist or dispensing or manufacturing firm or corporation known to be generally careful and trustworthy, or to have devoted special attention to certain official or unofficial preparations of fully known character, is legitimate; and the names of such persons, firms or corporations may, with the highest ethical propriety, be specified in prescriptions.

4. Preparations tainted with *secrecy of any kind* should be avoided absolutely.

5. Known preparations that can be obtained of one manufacturer only and which are physically and chemically what they purport to be, may be prescribed without impropriety, however much we may and do deprecate that fault in our laws which permits such monopoly in medicinal agents. *The law should be so altered as to abolish this form of proprietorship in medicines.*

In the foregoing discussion and summary, I have simply repeated, in somewhat different form, propositions that I have long maintained and the theoretic

grounds of which were set forth in a previous paper,¹ read at the Boston session of the American Medical Association. I have been moved to repeat myself by the importance of the subject; by the unfortunate tendency of some new converts to go to extremes that tend to bring back all the old confusion; and by the misleading use to which a garbled extract from my own plea for conservatism has been put.

The forces of right and of science must not suffer themselves to be divided. The American Medical Association through THE JOURNAL and through the Council on Pharmacy and Chemistry, has well nigh accomplished what seemed at one time to be a hopeless task. No one will claim that the Council is infallible; all must admit its ability, its sincerity, its integrity, and its desire to be just. It is pursuing the right course and we can afford to await developments. Above all we must hold up its hands. We must likewise avoid disarranging its plan of campaign by ill-devised sorties at the wrong time and place and against the wrong persons.

A NEW BLOODLESS METHOD OF AMPUTATING THE ANUS AND RECTUM.

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The following operation which I have devised has been used many times with excellent results. It is applicable to all cases of prolapse of the anus and rectum in which amputation is advisable. It is of value in (1) prolapse of the anus and rectum combined with ulcer, when the bowel is thickened or indurated; (2) irreducible gangrenous or sloughing prolapse; (3) organic stricture; (4) adhesions preventing reduction; (5) neoplasms involving the entire thickness of the intestinal wall, and (6) in procidentia due to organic stricture, in which the stricture has reached the lowest point of the prolapse, the whole may be excised, and thus the stricture and procidentia cured at the same time. It is not intended that this operation take the place of sigmoid-ectomy or colectomy.

PREPARATION OF THE PATIENT.

In this, as in other operations on the rectum and anus, time spent in the proper preparation of the patient will add much to the success of the operation and to the patient's comfort subsequent to the operation. A few days' rest on the part of the patient is advisable before such an operation, when possible. He should remain on a very simple and moderate diet, the bowels being kept quite free, and he should drink freely of water. Thirty-six hours before operation two ounces of castor oil should be given. The lower bowel should be well washed out the night before and no enema given on the morning of operation.

TECHNIC OF THE OPERATION.

The patient is placed in the lithotomy position, with the buttocks well elevated. The sphincter is dilated and the bowel pulled well down by means of three forceps which are applied to the intestine. A little manipulation will enable one to work down all the redundant bowel. The rectum is packed with a long strip of gauze,

about 6 cm. (2½ in.) in width. The elevation of the buttocks allows the small intestine to gravitate back in the pelvis, and when the prolapse consists of more than three inches of bowel or there exists an archocoele this step is important. If the small intestine be between the two cylinders of the prolapsed bowel it can easily be palpated between the thumb and finger and pushed up.

The protruded bowel is again well washed with soap and water, mercuric chlorid, 1 to 2,000, and sterile water. Two long Kocher or Ochsner mouse-toothed forceps are applied to the anterior wall of the prolapsed bowel in its long axis, one blade in the rectum and the other above, from the folded margin up to within 3 mm. (⅛ in.) of the skin surface, including both cylinders of the gut. These forceps are applied parallel about 1 cm. (⅜ in.) apart. Both cylinders of the bowel (all the tissue grasped by the forceps) are divided between them up to within 2 mm. (1/16 in.) of the skin margin. A catgut suture is then placed just beyond the toe of the right pair of forceps.

A hemorrhoidal clamp is applied beyond the toe of the pair of forceps to the left, the toe of the clamp pointing to the operator's left and grasping from 1.5 to 2 cm. (½ to ¾ in.) of the circumference of both folds of intestine, close to but not including the skin. The forceps are removed and the portion of bowel embraced in the clamp is cut away by shears about 3 mm. (⅛ in.) from the clamp and the remaining tissue is seared by an electric soldering iron or other cautery, after first protecting the anus and surrounding skin with a shield made of asbestos cardboard or sheet lead. The tissue embraced between the blades of the clamp is seized by the thumb and index finger of the left hand, the clamp removed and the two layers of intestine, now seared and adherent, are sewn together by a lock stitch, using No. 2 chromic catgut. The suture should be sufficiently long to continue without interruption all the way round the margin of the anus, and the end after the first knot left long. A long straight round needle should be used. The assistant holds the suture taut while the operator again applies the clamp and cautery, after which the suturing is again resumed and the process continued until the entire circumference of the bowel has been traversed, the two ends of the catgut then being tied.

No particular attention is paid to the vessels of the mesentery. The sutures may be applied before the removal of the clamp and immediately tightened on its removal, or on the removal of the clamp instead of seizing the tissues with the thumb and forefinger they may be caught with one or two mouse-toothed hemostatic forceps and the sutures applied and the forceps removed. I prefer the first mentioned method. The entire operation can be completed in from fifteen to twenty minutes or less.

If the prolapsed bowel is more than three inches in length care should be taken not to include a knuckle of the small intestine in applying the clamp. To avoid this accident, in addition to the measures spoken of in the foregoing, each bite of the cylinders of intestine should be examined between the thumb and index finger before it is grasped by the clamp. The presence of small intestine or omentum is easily detected and one meets with no trouble in crowding it upward with the examining fingers if the patient is in the proper position. In these cases several hemostatic forceps will need to be applied in turn when making the first or longitudinal incision. After the operation is completed the gauze is removed from the rectum.

1. Cohen, S. S.: "The Limits of Proprietorship in Materia Medica," THE JOURNAL, 1907, xlviii, p. 195.