showed a hemoglobin percentage of 65 per cent. without either hum or murmur. The youngest child included in this series was two weeks of age, and in this case, both the hum and the murmur were noted. Four of the others were under six months of age. In the seven breast fed children there were no venous hums present. One child, who had recently passed through a severe attack of measles, had a functional murmur. This child had a hemoglobin percentage of 61. The hemoglobin estimates in the remaining cases were 70, 71, 80 twice and 83 twice.

The point which we desire specially to emphasize in this comparison, is the fact that, in the breast fed children, although in two instances the hemoglobin percentage was as low as in the children showing murmurs in the other set, there were no murmurs present. On casual observation, the condition of nutrition of some of the foundlings seemed quite as good as that of some of the breast fed children. On closer inspection, however, the former were seen to be more apathetic, their muscles more flabby and their general tone much lower. These differences in the condition of tone were striking. The mild anemias were about the same in the two sets; therefore, we are inclined to believe that the murmurs recognized were not dependent on the associated anemia, but rather on the differences in nutrition.

In the fifteen children over one year of age, the venous hum was found eleven times and the functional murmur thirteen times, and in two instances, the murmur was present without the hum. The venous hum, in these cases, with one exception, was continuous and in this one instance it was heard only during systole.

The hemoglobin percentage varied from 55 to 100 and, in the instance in which it was 100, both the venous hum and functional murmur were heard.

These observations are not in accord with the investigations which have been made. As intimated in the beginning of our paper, functional murmurs are almost universally stated to be absent under three years of age. One exception to this statement appears in a communication by Rheiner.² He says that he believes that functional murmurs, though unusual, do exist before the second half of the fourth year and that he has heard soft, inconstant murmurs in the pulmonic and mitral areas in apparently healthy infants in the first year of life, for which he has found no satisfactory explanation.

In reference to this subject, Holt³ makes the statement that "accidental murmurs may be due to anemia and other blood conditions and, although not so common as in older patients, they are by no means rare even in infants."

W. L. Johnson⁴ makes the statement that he has "seen two cases of febrile murmurs in young infants."

With these exceptions, we have found no reference to their existence except as very unusual manifestations prior to the third year.

DISCUSSION.

DR. JOHN LOVETT MORSE, Boston, has tried to obtain information regarding the size of the heart in children, and has not been able to find anything satisfactory. According to his experience, the right border of the heart in infants up to two years of age is from one to two centimeters to the right of the right border of the sternum. Functional mur-

murs are very common in infants, and he believes that in many cases a murmur can be heard at the upper part of the sternum if the head is held backward.

DR. LOUIS C. AGER, Brooklyn, N. Y., asked whether the heart of the young infant is usually displaced much to the left in intestinal dilatation. His experience has been that it is crowded directly upward, but not much to the left.

DR. R. B. GILBERT, Louisville, said that there ought to be a book on anatomy giving the structures of the various organs in young children. The various text-books on this subject are wholly misleading, and on that account he believes that we have all experienced difficulty in mapping out the heart in cases of suspected cardiac affections in infants. The same is true in regard to the caliber of the bronchial tubes, and there are a number of anatomic points bearing on diagnosis which show distinct variations in the child as compared with those in the adult.

CONGENITAL DISLOCATION OF THE HIP.

AN ARGUMENT CONCERNING THE METHOD OF ITS TREATMENT.*

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SAN FRANCISCO.

There is a line of argument concerning the method of treatment of congenital dislocation of the hip, which is to-day being forgotten. I desire to review it because it opposes the reduction of the dislocation by any kind of forcible manipulation, and perhaps will tell against manipulation where but moderate force is used.

In 1899 I reported, at the New York meeting of the American Orthopedic Association, thirteen manipulative reductions; of these one is an anatomic and functional success, one is probably an anterior subluxation because of interposed capsule between the head and acetabulum, one was an anatomic success, but became ankylosed after an exploratory incision and consequent infection. Two of these have been verified by very recent, or comparatively recent, examination. The ankylosed one has passed from observation. There is nothing to add to the statement then made of the failures to maintain reduction in the other cases.

The previous year, 1898, at the Denver session of the American Medical Association, I reported, as part of a general report on the work I had been able to do, the case of a girl, 6 years old, with both hips out, on whom the manipulation plan apparently succeeded, but really failed. A second attempt again apparently succeeded on one hip and again really failed, and on the other hip the failure was a frank one. In this case I finally did arthrotomy and found that, in the joint in which the second attempt had apparently succeeded but had really failed, the interposed capsule, and the impossibility of putting the head through the narrow part in the capsule, was the cause of the failure; in the other joint the same obstacle existed and the capsule was full of bloody synovia, showing that the manipulations had been forcible and fairly well directed. Both hips were reduced by arthrotomy and the child left the hospital with each *in situ*, but her condition and whereabouts are not now known.

Since this operation, which was done in 1898, I have made no attempts, save one, at manipulative reduction, but have, instead, done the operation by arthrotomy in all instances.

2. Correspondenz-Blatt f. Schwelzer Aertze, December, 1903, p. 769.

3. Text-book on Diseases of Children, second edition, 1903.

4. St. Louis Courler of Medicine, December, 1903, p. 583.

* Read at the meeting of the American Orthopedic Association, Atlantic City, 1904.

As regards the manipulative method, I am sure that Lorenz told the whole truth when he stated that the obstacle to reduction was the narrowed part of the capsule just at the posterior and superior or superior part of the acetabular rim. If the opening, at this narrowed part, is big enough to permit the head to pass, reduction can be accomplished by manipulation, and may be maintained if the acetabulum is deep enough. I have in two instances done this, I know. In the 28 cases in which I have done arthrotomy, and in which I have explored the narrow part of the capsule by my finger, and so know its size and the strength of its walls, there has been but one case in which the passage of the head would have been possible. I am not too dogmatic when I say that no possible force could have put the femoral heads through the narrow part of the capsule in any of the other cases. One possibility, and 27 impossibilities!

Now what happens when attempts are made to accomplish this impossibility? Lorenz has reported plenty of fractures of the femur and one each of the pubis and of the ilium, and other operators have done the same.¹ Lorenz reports seven cases of paralysis out of 400 odd operations, but Taylor,² looking carefully for the condition, finds eleven cases in less than fifty operations, by various operators, including, I believe, Lorenz himself. While Taylor states that most of these cases recover, the uncertainty of the result is patent to all who have had the misfortune to injure a few major peripheral nerves. It certainly is an accident that can not be disregarded. My own contribution to the casualty list is the report of a case of Lorenz's own, of rupture of the capsule of the hip joint, distal to the constriction, and the thrusting of the femoral head out among the muscles of the thigh. While only one case was shown to have had this accident, still, from the similarity of the clinical conditions, I believe another had it, and it is not in the least impossible or improbable that it occurs in very many cases, especially in the class called "anterior transposition." Finally, on all sides one finds the absurdity of the term "bloodless" pointed out, and the reference to the lacerations of muscles, the extravasations of blood and hematomas. And last of all, Lorenz has reported one case of gangrene of the whole lower extremity.

These accidents must make any one who is not an enthusiast, or a special pleader, stop and think. One must say that to justify the exposure to such risks the percentage of successes, anatomic and functional, must be high, so that the benefit may, in the opinion of all, outrank the possible harm.

What is the percentage of successes?

From what we have seen of the Lorenz results, scattered between Boston and San Francisco, we can not believe that he ever really got good anatomic results in about half of all his cases. I am told that Wolff's claim was for only 25 per cent. of anatomic repositions, and Ridlon, in the most recent pronouncement, claims only 10 per cent., though he hints at 20 per cent. Is this enough?

One hundred children are exposed to fractured bones, injured nerves, lacerated muscles, torn capsules and ruptured blood vessels. Ten out of the one hundred may expect to get the prize sought. Sixty out of the one hundred may get the doubtfully "good result" of an anterior transposition. Thirty children out of the

hundred are perhaps to be considered fortunate if they get nothing.

In all seriousness I declare that the percentage of successes is not enough to warrant the risk, and I claim that the percentage of successes is not enough to justify the method apart from the risk. I am perfectly ready to subscribe to the satisfaction, for all parties, parents, patient and surgeon, which comes from a perfect anatomic and functional result, for I have experienced that satisfaction. But I deny that there can be any special satisfaction in the "anterior transposition," the result that has to be dubbed "good" in quotation marks, the result that still leaves a short limb and a limp, the result that in its failure may only suggest the quotation from Bret Harte, "He done his level best," as an excuse for the surgeon.

Ridlon quotes the earlier statistics of the operation for carcinoma of the breast, an ultimate mortality of 90 per cent. to excuse the 90 per cent. of failures to get anatomic results in congenital dislocations. But the 90 per cent. ultimate mortality in carcinoma of the breast was not satisfactory to surgeons, and methods had to be devised to lessen it. That they have been devised is shown by Kocher, who now quotes 42 per cent. of the cases sound three years after operation. The same dissatisfaction belongs to the results in congenital dislocation of the hip. We are bound to improve the methods of eliminating the risks, which are too many and too great and too awful. We have got to increase the number of cases in which the head is really and honestly put into the acetabulum, the cartilage of the head in actual contact with the cartilage of the socket. We are under the obligation of improving the methods for making this actual reposition permanent. In brief, we must improve in every particular the quality of the results we offer the people in these cases.

If we, as orthopedists, read what general surgeons teach and practice concerning the treatment of traumatic dislocations we shall see that they all deprecate the use of undue violence. Manipulation must be based on the most accurate knowledge of the mechanism of dislocation, and must be restricted to reduction without adding to the trauma. To accomplish this the dislocated bone must traverse, in its return, the path it made when it was displaced. Never must it be ground through a new path. If reduction is not possible by moderate force and in a reasonable time, an incision is imperative to permit the path to be cleared, the reduction to be done and the parts to be restored to the approximate anatomic relations.

No general surgeon to-day would countenance the use of extreme force in the treatment of an old unreduced traumatic dislocation. Moderate force, if it promises success or attains it, is advised, but extreme violence or prolonged efforts are wrong. In the light which an incision lets in otherwise insuperable obstacles are cleared away. In no instance of a recent or an old dislocation would a general surgeon attempt to jam a too large bone through a too small hole, and the passage of the femoral head through the constriction of the capsule in the case of the congenital hip dislocation, he would recognize, in the great majority of cases, as an impossibility.

If we turn to fractures, the advice and practice is the same. When the inside conditions of a fracture are such that satisfactory replacement of the fragments is impossible from the outside, the general surgeon makes an incision and deals with the fragments immediately.

1. Davis: *Am. Jour. Ortho. Surg.*, February, 1904.

2. *Am. Jour. Orth. Surg.*, February, 1904.

I do not forget that as orthopedists, we are teaching much to the general surgeon, and that we shall probably teach more; but we must be careful that we do not, in this instance, abuse his confidence and so invite him to criticize; for the general surgeon knows that the trauma of an aseptic incision is practically nothing in contrast to the injuries recited as incidental to the forcible manipulative method. The incision is less than that required for an appendectomy, less than that required for a nephrotomy, less than that required for an intra-abdominal shortening of uterine ligaments, less than that required for a herniotomy, less than that required for a lithotomy, less than the admittedly often necessary exploratory celiotomy. If the general surgeon, the world over, would not balk at this little incision, why should we? Or, if those of us who do some general, as well as some orthopedic surgery, would not shy at incisions for some objects, why should we do so for other objects?

If I am not afraid to open the knee joint to take out a floating cartilage—and I am not afraid to do this—why should I be afraid to open the hip joint to clear away the obstacle between the acetabulum and the femoral head?

I really do not believe that the definiteness of that obstacle is appreciated or else this question would not be necessary. In the case of a child who had a congenitally dislocated hip, who had never walked and who died of pneumonia sequent to measles, I secured the os innominatum and the whole of the limb. Before the child's death I had tried a manipulative reposition, using carefully regulated force, and apparently had succeeded; that is, the head went with a hop and a click to some place near the acetabulum. A week after this, however, relaxation had occurred. I then definitely reduced through an incision, and while in the splint the fatal illness supervened. The necropsy of the hip joint showed that my incisional reposition had not been permanent, the femoral head was posterior and superior to the acetabulum and the incision in the capsule had healed so perfectly that it could not be found, so that the original local conditions were restored. Now with all of the tissues removed from the bones except the capsule, and able to get a thoroughly good hold of the parts and to guide my efforts by sight, I was still unable to put the femoral head into the acetabulum. At the present time I am fairly familiar with the feeling gained by thrusting the forefinger down into the constricted part of the capsule after the joint has been opened, and in the operation which was done on this child in life the constricted part was not different from what it has been in other children, nor was it different after death, when I examined the joint. I am stating a fact when I say that no one in this world could, by manipulation alone, have put that femoral head into that acetabulum before death or after death, yet the child was but 10 months old and had never walked. In the 28 cases in which I have opened the joint and put in my finger, I have found one case that could surely have been reduced by manipulation, but only one. In all the others the femoral head was too big and the constricted part too small for the one to go through the other. It is literally the case of the camel and the needle's eye.

If this disproportion is such as I have described it, and I know that it is so; or if it is half as great as I have made it out, and it certainly is that; if it is only so bad as to make anatomic reduction impossible in from 75 per cent. to 90 per cent. of the hips, why submit that

number of hips to the forcible manipulation now in vogue? Why follow an inexact and vulnerating method which gives a small percentage of anatomic reductions, when we have at hand a simple and exact surgical method which will permit the reduction to be definitely accomplished in practically all the cases that are of suitable age?

Of course if we are to save these cases, irreducible by manipulation, from the risks of forcible manipulation, we must save all, for no one can tell, *a priori*, which case is to prove reducible and which is not; and that will mean that all congenitally dislocated hips shall be reduced by arthrotomy, so that the operator knows just what he is doing, does what he wishes, and does not do what he does not wish. Moreover, it means that all hips, in the suitable ages, shall be definitely reduced, the surgeon will actually put the two parts together, and, so far as the conformation of the parts permits, they will stay in that relation. If, however, the parts are so malformed that a reposition which shall be stable is not possible, there will be a relaxation or a subluxation, possibly an anterior one. This is just as likely to occur in the arthrotomy reductions as in the manipulative reductions, and no more likely. It will be a late result, and the mechanically inevitable result of pre-existent anatomic conditions; it will not be the result of an inexact and incompetent method. I much prefer to be able to say to parents that I have put their child's bones together properly, but that the bones are too misshapen to remain together, than to have to say that I could not put them into any anatomic relation whatever.

Finally, by the arthrotomy method the patient will have been saved the exposure to paralysis, which comes at the rate of from 2 to 20 per cent. of the cases; will have been spared the risk of a broken leg or pelvis; will not have had the contusion and lacerations of the muscles about the hip which result in ecchymoses and hematomas and possible gangrene; and will have been exposed only to the one danger of sepsis, the possibility of which should not be greater than, nor as great, as it is in clean appendectomies.

I do not see what is gained for the children by the present method of forcible manipulation except for that small proportion, 10 per cent., that gets the anatomic and functional perfect result; and this result could be gained more easily and with less risk by the arthrotomy method, so that the value of this 10 per cent. is not its face value. Nor can I see any reason in an argument against an aseptically made incision to clear away the obstruction and permit the easy access of the head to the acetabulum, a goal that is so strenuously struggled for in the manipulative method. It seems to me to be sensible to really reduce the dislocation when we set out to do so, and choosing a more difficult and devious instead of an easier and more direct method is very much like making a feat of a surgical procedure.

My own list of cases, which I have done by arthrotomy, is a modest one, and would not have been reported until it was longer and older had it not seemed to me to be right to speak of this question now.

There have been 28 hips in 20 children submitted to reduction by arthrotomy. The oldest was 11 years, the youngest was 10 months. Between these ages there were 3 in the second year of life, 3 in the third year, 5 in the fourth year, 2 in the fifth year, 1 in the sixth year, 1 in the seventh year, 1 in the eighth year, 1 in the ninth year and 1 whose exact age is not known, but, as I remember, it must have been about 6.

In each instance the femoral head has been put into the acetabulum, cartilage to cartilage. Seventeen hips are known to be in stable position, with the head in the acetabulum, at times varying from 2 months to 6 years after the operation. In those children who were operated on earlier in life—below 7 years—there is ample range of motion at the hip, so that they can sit down, and can go up and down stairs, and can run and jump. In these younger children there is no tendency to ankylosis. In those who were older there has been a tendency to ankylosis, which has had to be combated, or else a practically immobile hip has resulted. This may be a permanent condition or the joint may work loose, the final result depending more on the disposition of the child—for the active child will develop motion when the passive child will not—than on any condition in the hip. I have seen the same thing in the old Lorenz operation; a child whose hip remained fairly rigid, having only what we call "shake motion" for many months, would slowly work itself loose and have finally an ample practical range of motion. Eight hips are known to be sub-luxated or reluxated, and the times of observation are about the same as in the group just cited. In three hips the final result is unknown.

Some of the hips that reluxated did so, I feel sure, because of too short a time in the plaster of paris, and consequently the hips of more recent operation, where splint restraint has been continued for a longer time, seem to me to promise better results. Certainly the 12 and 18 month old cases are, at present, very satisfactory.

In two of these cases there was a slight staphylococcus albus infection of the skin incision. No case has had any infection of the deeper tissues. In one case, one of the older children, the skin of the perineum was torn and there is a paralysis of the muscles of the leg. The attempt at reduction in this child had risks which were acknowledged before the operation and the attempt was made reluctantly. It has succeeded, the head is in the acetabulum, the perineal wound has healed, but the paralysis has not yet disappeared. It is known, however, that this paralysis occurred after the accomplishment of the reduction and at the time that the knee was extended so that it is reasonable to expect it to disappear in time. With the exception of these items there has been no casualty of any kind in this series of cases.

There is still another word to be said. I took one of the anterior transposition cases of Dr. Lorenz's and tried to accomplish reposition by arthrotomy. My incision found the head in a subfascial extra-articular location and surrounded by a pseudo capsule; the cartilage on the head was eroded. The true capsule it was not possible to identify, excepting that part of it which was attached to the acetabular rim. It was very plain that, in the forcible manipulation the capsule had been ruptured and the head thrust through the rent. It is to be remembered that in the Lorenz method there is a time when he does what he calls stretching the anterior part of the capsule. At this point in the procedure the limb is wholly abducted and the head well jammed down over the acetabulum. In this position the knee is carried backward and the head lifted from the bone, the shaft being a lever and the fulcrum the side of the pelvis. Just what the act would accomplish if the head were in the acetabulum I do not know; but when the head has been pushed down past the too small opening in the capsule and held firmly against the lower part of the upper portion of the cap-

sule, which must be stretched very tightly, it is easy to understand that a rent would not be difficult to make, and a continuation of the prying motion would carry the head through it.

The point that I wish to make is that this laceration of the capsule precludes the possibility of a successful reduction by arthrotomy. Another point is that those of us who attempt reposition by manipulation must be guided by rules analogous to those that govern taxis for a strangulated hernia. Do not attempt the procedure if another has attempted and failed. Do not push the effort beyond a certain short time. Do not use force great enough to tear any part of the capsule, for you have no way of telling what part you may be tearing, and you may not only fail of manipulative reduction, but may also spoil the hip for an arthrotomy.

TECHNIC OF OPERATION.

The technic of the operation as I have come to do it, is as follows: The child is placed on the table with a sheet, rolled diagonally into a soft sort of rope, between the thighs. The ends of this rolled sheet reach beyond the child's head and are attached to a stout ring in the wall of the room. The part which is between the thighs is wrapped with a wet sterile towel, arranged so that it lies directly under and across the ischial tuberosity of the side on which the operation is to be done. It must not lie across nor cover the genitalia. This sheet gives a safe and sufficient counter traction in case any amount of force is needed to pull the femoral head down to the level of the acetabulum.

Around the thigh, just above the knee, is fastened a skein of yarn, by a clove hitch, and another is put around the ankle in the same way. Traction on either or both of these is permissible, up to limits which seem safe, and that without injury to the skin.

A moderate pull is then made on the leg which draws the femoral head down from its usual location on the dorsum of the ilium, and brings it to just below the anterior superior iliac crest, where it is easily palpable. The incision advised by Lorenz is then made, cutting skin, subcutaneous fascia, fascia lata and finally the muscles and all in the direction of the muscular fibers, so that these are separated and not cut. This exposes the capsule and it is incised in the same direction showing the femoral head inside it. Deep retractors have been used to hold the tissues apart, but now long loops of catgut are put in either side of the incision in the capsule, and they act as retractors. In older children it is right to do a subcutaneous section of the adductor tendons close to the pubes.

The pull on the leg is now relaxed, the femoral head goes up and the gloved finger is slipped into the capsule and down toward the acetabulum. Very rarely indeed will it be able to enter the latter, though flexion of the hip relaxes the anterior part of the capsule, and so makes the opening somewhat larger. With the finger as a guide a long, straight probe-pointed bistoury is passed into the acetabulum and while the finger in the wound presses its edge downward against the lower part of the capsule the hand on the outside slowly saws the knife to and fro. The cut thus made must be close to the femur and must especially avoid the anterior part of the capsule. Care must be taken not to cut off the ilio-psoas tendon, but the incision must be ample enough to give free access to the cavity of the acetabulum.

The femoral head is again pulled down from the

dorsum of the ilium by hard traction on the leg or on the yarn skeins, or, in older children, a tackle of blocks and rope may be used to overcome the resistance of shortened muscles and fascia.

When the head is over the acetabulum it may, in some instances, be thrust into the socket by firm pressure inward over the trochanter. Sometimes this maneuver has to be combined with abduction of the leg, made while the traction is maintained, the operator pressing the while firmly on the trochanter and supplying a fulcrum so that the head may be made to travel downward and inward and jump over the acetabular rim into the socket. There is one objection to the traction, for it makes a pull on the anterior fibers of the capsule and narrows the opening, and so occasionally one finds that, after reasonable efforts, in which the capsule has probably become somewhat stretched, flexion of the hip and manipulation of the leg—the direction of the movements being guided by the finger in the joint—succeeds in slipping the head into the acetabulum without the use of force at all. In not a few instances, in young children, from two to four years old, this may be done primarily, without the preliminary pull on the leg.

In a fair proportion of these cases there is a twist in the upper part of the femoral shaft so that the neck and head look forward when the toes are pointed in the same direction. Whether this is the case or not can always be determined by radiograms, one taken with the toes pointing forward, and another with the legs rotated out. If there is the twist forward in the bone, it will be necessary to compensate for it by rotating the whole limb inward during the manipulations to direct the head into the acetabulum. Once the head is in the acetabulum the limb is put into a position of abduction of from 50° to 90° and rotated in or not as may be necessary. This position thrusts the head more firmly into the acetabulum and prevents relaxation. The two retracting cat-gut loops are now tied together to close the upper part of the incision in the capsule. The lower part of the capsule incision, by the act of reduction, has been carried so deeply into the limb that it can not be reached to be sutured. Sutures are then put in the fascia, deep and superficial, leaving space for the insertion of a cigarette drain down to the capsule. Finally the skin is sutured and then both limbs and the pelvis are put into a double plaster of paris spica. Even if but one hip is operated on, both limbs must be included in the first retentive plaster dressing.

AFTER-TREATMENT.

After forty-eight hours the drains are taken out, and if there has been no sepsis, the leg is left undisturbed for three months. If sepsis occurs it is right to relaxate to avoid an ankylosed hip.

After three months the spica is taken off, and the limb adducted somewhat and another spica put on, including only the leg of the side of the operation in the one-sided cases, but both legs in the double cases.

After another month or so this may be arranged so as to leave the foot free, and the child may then be made to walk in the plaster. After six months have elapsed the spica may be made only to include the thigh and pelvis, leaving the knee free. After eight or nine months the retentive dressing may be left off entirely.

THE TREND OF MODERN PRESCRIPTION WRITING.*

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The object of this paper is to show the trend of the physician in his prescribing at the present time. Five hundred prescriptions were carefully examined as they were received and filed in each of two of Philadelphia's best prescription stores, both of which are managed by able and energetic pharmacists, who have had collegiate training.

Five hundred prescriptions were examined in each store in order to make proper comparisons, and also to give a more general report of the type of the modern prescription.

These stores were so located that they received prescriptions from all the leading physicians of the city, and a large number of the prescriptions were from the pens of the professors and instructors on our medical school and hospital staffs, as well as a number from physicians in general practice, so that these prescriptions represent the type of prescription as written by our best practitioners in the twentieth century.

The following table gives the results of my investigation, these prescriptions all being written since January 1, 1904:

1,000 Prescriptions.	Store No. 1.	Store No. 2.	Total expressed in percentage.
Number containing chemical incompatibilities.....	8	5	1.3
Number containing pharmaceutical incompatibilities.....	10	3	1.3
Number containing therapeutic incompatibilities.....	1	...	0.1
Number containing 6 or more ingredients.....	34	16	5
Number containing 2 to 5 ingredients.....	347	371	71.8
Number containing one drug or preparation.....	119	113	23.2
Number containing only official preparations.....	244	240	48.4
Number containing proprietary preparations in whole or part.....	195	164	35.9
Number containing patent medicines.....	1	1	0.2
Number in which the metric system was employed.....	3	2	0.5
Number containing non-official preparations in whole or part.....	60	95	15.5
Number written correctly.....	328	293	62.1
Total prescriptions examined.....	500	500	100.0

Now let us consider these prescriptions under the various headings as classified above:

PRESCRIPTIONS CONTAINING CHEMICAL INCOMPATIBILITIES.

Only those were considered where a dangerous or objectionable compound would result from dispensing the prescription as ordered (intentional incompatibilities not being considered), and we find eight in the one series and five in the other. This is a good showing, but it would have been far better if there had been none, as in some instances the prescriber had to be notified and the prescription altered, in others a "shake well" label would suffice to obviate possible danger.

This shows two things: first, the importance of having our prescriptions compounded by competent pharmacists, who have a thorough knowledge of chemistry, and who can act as a "safety valve" when dangerous compounds are ordered, either through oversight or ignorance on the part of the prescriber. Second, the importance of every physician having a general knowledge,

* Read before the Philadelphia County Medical Society, 1904.