The idea mentioned above of the pharmacist going into departments of the hospital was discussed in a paper presented before the pharmacy division at the Tri-State Hospital Convention held in Chicago. The suggestions made were reasonable and very good considering the very extensive instruction the graduate pharmacist receives to-day during his four years of pharmaceutical training.

This wage yard-stick would be of little value to those hospitals who have established the positions in their pharmacies on a fair wage basis, but to the many small institutions, whose pharmacies are badly in need of reorganization, this is offered as a practical solution.

A SURVEY OF PROPRIETARIES IN PRESCRIPTIONS.*

BY J. H. GOODNESS.1

Several years ago while visiting a druggist, I was surprised to hear him refuse a prescription. My curiosity caused me to ask the reason for his action. His explanation ran somewhat as follows:

"It's bad business," he said, "filling that prescription. It calls for three ounces. I have to buy sixteen ounces, and I won't get another prescription like it again for six months—perhaps never. I know what I'm talking about—let me show you the proof." With this he led me to his "morgue" upon the shelves of which stood about seventy or eighty bottles and packages. He reached for what appeared to be a full sixteen-ounce bottle in the "S" section and holding it up he continued, "Two ounces out of this one, about a year and a half ago, for one of those 'two-specialties' prescriptions. If I ever sell the store it will help my stock look complete. I can't see how a young fellow can open up a professional store to-day. He'd have to have twenty times the investment this store was started with thirty years ago, and I didn't start on a shoestring. I've cleaned a lot of this stuff out; it isn't much good after a couple of years, and anyway, I don't want to increase my floorspace just to store this stuff in a warm place."

There was no doubt that this pharmacist had made up his mind that one of the greatest enemies of his prescription business was the manufacturer who was constantly increasing the number of proprietaries and specialties. Although I talked with him for some time about the matter, he was so completely biased and used such strong language that I could hardly put faith in what he said. The question, however, was important, it seemed to me, and so I decided to conduct one or more surveys to determine, if possible, the trend in this matter.

I searched for existing statistics and found that the recently issued National Drug Store Survey and the Professional Pharmacy had considerable information on the subject. It showed that although proprietaries were responsible for from 35% to 45% of the total value of the inventory of the Prescription Department, proprietaries constituted only 20.5% ($^{1}/_{\delta}$) of the total number of ingredients used in compounding the prescriptions studied. About 25% of the prescriptions called exclusively for specialties, from 50.9% to 53.6% of the prescriptions were for non-

^{*} Presented before the Section on Pharmaceutical Economics, A. Ph. A., Minneapolis meeting, 1938.

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proprietaries or "official prescriptions," and the remaining 21% to 24% were for mixtures of proprietaries and non-proprietaries. While the figures were authoritative and reliable, I wished to study further the tendency toward increase or decrease of the proprietaries in the prescription business

To do this, it was necessary to have a great deal of data, the collection of which was costly; therefore, I conducted two studies on a relatively small scale. The first is based upon very complete records of the prescription business of a professional neighborhood drug store in one of the divisions of Greater Boston. The records are exceedingly detailed starting with 1927 to date, and it is upon the records of the last $11^{1}/_{2}$ years that this study is based. That part pertaining to proprietary prescriptions can be summarized very tersely by the following table:

Year.	Total Prescriptions (New and Repeat).	Total Proprietary Prescriptions.	Per Cent of Proprietary Prescriptions.
1927	4,292	700	16.30%
1928	5,202	958	18.41%
1929	5,521	1,101	19.94%
1930	4,690	1,744	37.18%
1931	5,474	2,034	37.15%
1932	5,729	1,964	34 . 28%
1933	5,367	1,705	31.76%
1934	5,107	1,817	35.57%
1935	5,669	1,965	34.66%
1936	5,858	2,016	34.41%
1937	5,807	1,993	34.32%
1938	3,208	1,106	34.47%
(6 mos.)			
Totals	61,924	19,103	$(30.85\%-11^{1}/_{2} \text{ yr. av.})$

The prescriptions which contained a proprietary as the sole or prevailing ingredient were classified as "proprietary prescriptions." The records classified prescriptions into only two classes, namely, "Proprietaries" and "Non-proprietaries."

It is interesting to note that the number or per cent of these proprietary prescriptions increased very rapidly from 1927 to 1930, and since then have remained about constant in this store. The figures, however, are not typical of all drug stores, for since 1930 an intensive detail-of-doctors program has been in progress. The proprietor has gone so far in this direction as to present 100 doctors from whom he receives prescriptions with copies of the National Formulary.

This act, coupled with the constant reminder that official prescriptions for non-proprietaries are less expensive to the people of the medium-class district in which the store is located, has kept the specialty prescriptions at a minimum. Without the never-ending detail, the figures for this store might have been as great as is disclosed in the next study.

The Massachusetts College of Pharmacy Prescription Survey.—The second study of proprietaries and specialties was conducted upon the total new non-narcotic prescriptions filled in one month during 1937 in another professional store located in one of the middle-sized Massachusetts cities. There were 537 prescriptions filled during that month. Two of these prescriptions called for hospital formulas by number, and since the ingredients of these formulas were unknown to me, all calculations are based upon the remaining 535 prescriptions. To facilitate the study,

the prescriptions were divided into 11 classes under three general headings: First, prescriptions calling for proprietaries only; second, prescriptions calling for non-proprietary ingredients only; and third, prescriptions calling for a mixture of proprietaries and non-proprietaries. The non-proprietary prescriptions of class two and the "mixture" prescriptions of class three were subdivided into classes showing: (a) no substitution, (b) partial substitution and (c) complete substitution of the non-proprietary ingredients by proprietaries. The numbers and per cents of each class follow for prescriptions calling for: (The words "no substitution," "partial substitution" and "substitution" where present, refer to the possibility of replacement of non-proprietary items by proprietary products).

1. SOLE PROPRIETARY 2. MIXTURE OF PROPRIETARIES ONLY 3. NON-PROPRIETARIES ONLY—NO SUBSTITUTION ("Vaseline" for petrolatum is omitted in the calculations) 4. NON-PROPRIETARIES ONLY—PARTIAL SUBSTITUTION 5. NON-PROPRIETARIES ONLY—COMPLETE SUBSTITUTION 6. MIXTURE OF ONE PROPRIETARY AND ONE NON-PROPRIETARY—NO SUBSTITUTION 7. MIXTURE OF TWO PROPRIETARIES AND TWO NON-PROPRIETARIES—NO SUBSTITUTION 8. MIXTURE OF A LESSER NUMBER OF PROPRIETARIES AND A GREATER NUMBER OF NON-PROPRIETARIES—NO SUBSTITUTION 9. MIXTURE OF A LESSER NUMBER OF PROPRIETARIES AND A GREATER NUMBER OF NON-PROPRIETARIES—NO SUBSTITUTION 1.	%
2. MIXTURE OF PROPRIETARIES ONLY 3. NON-PROPRIETARIES ONLY—NO SUBSTITUTION ("Vaseline" for petrolatum is omitted in the calculations) 4. NON-PROPRIETARIES ONLY—PARTIAL SUBSTITUTION 23—4.299 5. NON-PROPRIETARIES ONLY—COMPLETE SUBSTITUTION 47—8.789 6. MIXTURE OF ONE PROPRIETARY AND ONE NON-PROPRIETARY—NO SUBSTITUTION 7. MIXTURE OF TWO PROPRIETARIES AND TWO NON-PROPRIETARIES—NO SUBSTITUTION 8. MIXTURE OF A LESSER NUMBER OF PROPRIETARIES AND A GREATER NUMBER OF NON-PROPRIETARIES—NO SUBSTITUTION 9. O.569	%
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5. NON-PROPRIETARIES ONLY—COMPLETE SUBSTITUTION 47— 8.789 6. MIXTURE OF ONE PROPRIETARY AND ONE NON-PROPRIETARY—NO SUBSTITUTION 18— 3.369 7. MIXTURE OF TWO PROPRIETARIES AND TWO NON-PROPRIETARIES—NO SUBSTITUTION 3— 0.569 8. MIXTURE OF A LESSER NUMBER OF PROPRIETARIES AND A GREATER NUMBER OF NON-PROPRIETARIES—NO SUBSTI-	
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GREATER NUMBER OF NON-PROPRIETARIES—NO SUBSTI-	%
TUTION $24-4.489$	
	%
9. MIXTURE OF A GREATER NUMBER OF PROPRIETARIES AND A	
LESSER NUMBER OF NON-PROPRIETARIES—NO SUBSTITU-	
TION 3— 0.56%	ъ,
10. MIXTURE OF PROPRIETARIES AND NON-PROPRIETARIES—	
PARTIAL SUBSTITUTION 13— 2.42%	%
11. MIXTURE OF PROPRIETARIES AND NON-PROPRIETARIES—	
COMPLETE SUBSTITUTION 5— 0.939	%
Totals 535 100.009	<i>7</i> ₀

From these 11 divisions of prescriptions a great many interesting facts can be discovered. A few of these observations follow:

249 prescriptions (classes 1 and 2) or 46.54% of the total number, called SOLELY for proprietary preparations BY THEIR TRADE NAMES.

This is a considerable increase over the "about 25%" figure of the National Drug Store Survey.

66 prescriptions (classes 6, 7, 8, 9, 10, 11) or 12.33% of the total, called for a mixture of proprietaries and non-proprietaries.

The National Drug Store Survey figure for this class, you will remember, was from 21% to 24%. This shows a decrease of "mixtures," the lessening percentages probably going toward "sole proprietary" prescriptions.

These two subtotals combined show that 315 prescriptions or 58.88% of the total number called either in part or as a whole for trade-named prescription specialties. In more understandable terms, about 6 out of 10, or $^{3}/_{6}$ of our prescriptions,

have at least one proprietary in their make-up. The half-way point, when prescription proprietaries were 50% or less of the total prescriptions filled, has long been passed. The increasing importance of prescription proprietaries is further proved by the following figure:

88 prescriptions (classes 4, 5, 10, 11) or 16.44% of the total, could, if the druggist so wished, be compounded with proprietaries replacing non-proprietaries. For these 88 cases, proprietaries of the same ingredients as those of the non-proprietaries called for, existed on the market.¹ Replacement could be partial or complete.

This practice of substituting proprietaries for non-proprietaries, while not engaged in by the store from which the prescriptions were taken, is nevertheless common in stores less professional. These stores either because they think that the cost of the proprietaries is lower than the store-manufactured pharmaceuticals, or because they "cannot afford the time" to manufacture, are contributing much force to the backward pull in Pharmacy.

The final figure pertaining to proprietaries and prescriptions shows that if a druggist filled all prescriptions calling for proprietaries exactly as written, and substituted proprietaries for non-proprietaries whenever that was possible, 337 of the 537 prescriptions would have had one or more proprietaries in their composition. This means that 62.99% of the prescriptions would probably have proprietaries in some of our drug stores to-day.

To figure the "proprietary question" from another angle, these same 535 prescriptions were analyzed as to their ingredients. The final table shows that:

931 ingredients (chemicals, pharmaceuticals, specialties) were required to compound all the prescriptions.

333 ingredients or 35.76% of the total were proprietaries.

598 ingredients or 64.23% of the total were non-proprietaries.

104 of these non-proprietary ingredients could be replaced by existing specialties or proprietaries. The 104 ingredients represent 11.17% of the total number of ingredients used, or 17.39% of the non-proprietaries called for by the prescriptions.

1.77 was the average number of ingredients for each prescription studied, although the range was from 1 to 7 items.

Again it is possible to discover many relations from the above table. Perhaps the most interesting observation that can be made, and which proves very vividly how the number of proprietaries in prescriptions has increased in the last few years, is in comparing the 437 ingredients total (333 \pm 104), which is 46.93% of the required and substituting proprietaries, with the "20.5% ingredients" figure for proprietaries in prescriptions as disclosed in the National Drug Store Survey.

To summarize to this point the main findings of the new surveys, we see that from 34% to 58% of the present-day prescriptions call solely or in part for specialties or proprietaries, and 63% of the prescriptions may be filled with proprietaries if substitution of non-proprietaries by proprietaries is practiced.

The Rate of Increase of New Remedies.—By now, everyone connected with Pharmacy is aware that patents, proprietaries and specialties are increasing at a rate which is frightening. Our magazines are fast becoming catalogs of new pro-

¹ The author is grateful to Professor Ohmart of the Pharmacy Department and to Professor George E. Grover, for information concerning these substituting proprietaries as well as for other services rendered in the survey.

prietaries, for seldom does a monthly issue appear without at least one full page of announcements of new preparations. Just how fast these new remedies are appearing has never accurately been determined, and in all probability never will be, because many of the new remedies and preparations are local in character, and do not reach the lists published in our nationally or even sectionally distributed magazines.

To estimate the rate of increase of new proprietaries, it was my pleasure to make a brief survey of the magazines and publications listing them. The first part of the study dealt with the "Modern Drug Encyclopedia and Therapeutic Guide" by Jacob Gutman. This publication, as you know, is devoted to new remedies—generally of American manufacture—and is restricted almost entirely to manufacturers having a nation-wide business. Local new preparations seldom, if ever, appear in the list. The 1934 edition of the guide contained 8160 medicinal preparations. Since it did not specify the period during which these preparations were created, it was necessary to go to the "Three-Year Supplement" issued in 1938 for a "rate of increase" figure.

The index of this Three-Year Supplement lists at least 1441 specialties and proprietaries of various form. The preface announces that most of these have appeared since the issue of the original work in 1934 with a few additional drugs which had not been previously included. The supplement covers the years 1935 to 1937, inclusive.

For simplicity, let us consider that the entire 1441 "drugs" were created during the three years mentioned. If we divide this total by the number of days in three years, which the supplement covers, we find that new "drugs" are appearing at the rate of 1.3 a day or 480 new drugs a year. This figure is impressive enough, but let us look further.

The second part of this particular study surveyed the increase of new preparations as listed in the Journal of the American Pharmaceutical Association from January 1937, through June 1938. The Journal lists new remedies under two headings, first, "New Remedies—Specialties" and second, "New Remedies—Synthetic." In these eighteen months the Journal listed 186 new synthetics and 644¹ new specialties, making a total of 830 new remedies for the period or 1.51 new remedies for every single day. The figure is higher than the previous one, because the Journal lists both foreign and domestic new remedies.

If we were to make a final single-figure estimate of the rate of daily increase of new remedies, it would not be too far wrong to say, when we consider all the local brands of new remedies that never reached the lists, that every single day adds at least two new drugs, proprietaries or specialties to the druggists' catalogs. To say that they are added to his inventory would be grossly misleading, for no druggist can, or ever will be able, to afford such practice.

Just what can be done, if anything, about this matter of the constantly increasing prescription specialties is a question. That something may have to be done is evident, for retail druggists with their limited capital cannot afford to invest the tremendous amounts necessary to keep up with the growing list of these preparations. But until such time as group action will be taken, it is the duty of

¹ Sixty-nine of the 644 specialties are listed collectively in the abstracts of the JOURNAL as "New Remedies." Because of this, there may be some duplications in the list.

each individual druggist to do something about this matter for himself, that is, if he wants a fair return on his investment.

A few of the methods to counteract this growing tendency which are available to druggists as individuals include first, detailing doctors with a complete selected list of proprietaries that contain no duplicates, or with a plea that official preparations be prescribed for the economy of the patient. Second, that retail druggists specialize in the complete lines of a few manufacturers and have an exchange arrangement between themselves. (This method is cumbersome, for it requires much bookkeeping and delivery, and, therefore, probably will not be very popular.) Third, each druggist create his own duplicates of popular specialties of the simple type and detail doctors for prescriptions calling for them. Fourth, make an arrangement with wholesalers to furnish the specialties in amounts smaller than full packages. This will permit the retailer to buy four ounces or a one-prescription amount of a preparation and dispense it at no loss, which would not be the case if he had to buy a full sixteen-ounce or even eight-ounce bottle.

There are other legal means available to meet the problem, but whatever is done will have to be done soon or else the exclamation "Your druggist is more than a merchant!" will become "Your druggist is ANOTHER merchant!"

A PROFESSIONAL NEWSPAPER AS A BUSINESS AND GOODWILL BUILDER.*

BY ARTHUR H. EINBECK.1

As a pharmacist who had lost his way a bit from the professional path and sadly realized some years ago that the better side of the business of a retail pharmacy lies in the stress of the primary function of filling prescriptions and telling the world about it, I sadly began to take inventory of the "wreck of the Hesperus" which I sorrowfully called my drugstore. It had been hit by the inroads of competition of the cut-rate variety, it is true, but had been cut deeper by the inroads of extra-curricular activities. My further inventory showed that I was a director of the West New York Board of Trade, a vice-president of the Board of Education, past-president and chairman of a prominent Committee in the Kiwanis Club, Past Commander and Service Officer of the Charles Cusick Post American Legion, Service Officer of the Veterans of Foreign Wars, and Adjutant, with rank of Captain, Medical Administrative Corps of the 303rd Medical Regiment of the 78th Division of the U. S. Army Service, with the command of the Service Company of the Regiment as a side issue.

Here, I sadly contemplated, was the time to put on the brakes, and I forthwith commenced my campaign; Mrs. Einbeck, who as a graduate of Home Economics of the New Jersey College for Women had the grave misfortune of marrying me, was enrolled in the Columbia University evening course on Drug Economics, conducted under the auspices of Dr. Paul Olsen of the Philadelphia College of Pharmacy, and from then on the fur began to fly.

^{*} Presented before the Section on Pharmaceutical Economics, A. Ph. A., Minneapolis meeting, 1938.

¹ 644 Bergenline Ave., W. New York, N. J.