

it for a century are not yet solved. There are still among us many who see the pharmacist as just another high-powered salesman. . . *They* must die and *their* places gradually be filled by men devoted to the ideal that the only reason for the existence of the pharmacist at all is the same as that for the physician, dentist or nurse; *i. e.*, that he is a worker in the larger field of public health. We have a long way to go, but there are signs everywhere that we are already on the way."

The training of the professional pharmacist of the next generation and the future leaders of our profession is the task confronting our colleges of pharmacy. That they will meet it, especially if we give them our coöperation, you may rest assured.

USE OF FLUIDEXTRACTS DURING THE PAST 50 YEARS.*

BY E. N. GATHERCOAL.

The following tabulation of data on the use of fluidextracts in prescriptions presents a vivid picture of the decrease in use of this important line of galenicals. This is one of the very striking studies developing out of the U. S. P.-N. F. Prescription Ingredient Survey.

The U. S. P.-N. F. Prescription Ingredient Survey of 1930, which has been in progress for nearly a year, but is now rapidly nearing completion, will present a nation-wide view of the items used in prescriptions in the United States and the number of times each one occurs in ratio to 10,000 prescriptions.

This Survey has been based on the findings of the Prescription Count Survey. The Prescription Count Survey will indicate in a general way that from one-third to one-quarter of the prescriptions filled in drug stores in this country are dispensed by high class prescription type drug stores, or by stores which do a large prescription business. About one-third of the prescriptions are filled in stores of a middle class so far as the prescription trade is concerned, and about one-third in stores in which the prescription trade is relatively small.

We find that in the very large high type prescription stores, that the greatest assortment of prescription items is called for. That is, the actual items called for in a definite number of prescriptions (10,000) will be high. In the second group of stores this list of items in 10,000 prescriptions will be considerably reduced; and in the third group this list of prescription ingredients will be quite markedly reduced. While this reduction is evident in all types of prescription ingredients, it is, perhaps, least marked in the proprietary type, and most marked in the U. S. P. type.

The Survey is centered about four cities, namely, New York, Baltimore, St. Louis and San Francisco, though it spreads quite widely throughout the respective states in which these cities are located.

The Survey in New York State, embracing 40,000 prescriptions, has been completed, and advance has been made in the other cities, though the data is not fully tabulated.

In addition to this new survey work being done over the year 1930, we have tabulated data from six other surveys of similar nature that have been made during the past 50 years. Therefore, we not only have a picture of present-day conditions, but an opportunity to study the trends of medicine over a half century of time.

* National Formulary Bulletin, February 12, 1932.

In the following tabulation, the column headed "1885" represents a survey prepared by Albert E. Ebert on 15,734 R̄ from nine stores in Chicago and other Illinois cities, and published in the Proceedings of the Illinois Pharmaceutical Association of 1885.

The column headed "1895" represents the data from 12,000 prescriptions in Chicago and other cities of Illinois prepared by C. S. N. Hallberg and published in the Proceedings of the Illinois Pharmaceutical Association of 1895.

The column headed "1908" represents data included in a "Statistical Report on Prescriptions collected by direction of the Board of Trustees of the U. S. Pharmacopœial Convention of 1900 and collated by C. S. N. Hallberg and Clyde Mason Snow from June 1908 to December 1909." This report has never been published. It covers 117,000 prescriptions from 21 states.

The column headed "1927" represents data from the Charters' Report on 17,577 prescriptions, and published in "Basic Material for a Pharmaceutical Curriculum" first edition 1927.

The column headed "1931 New York" represents the data from 40,000 prescriptions read in New York City and other cities of New York State for the U. S. P.-N. F. Prescription Ingredient Survey.

The column headed "1931 Maryland" represents the data from 6000 prescriptions read in Baltimore and other cities of Maryland for the U. S. P.-N. F. Prescription Ingredient Survey.

The column headed "1931 California" represents the data from 8000 prescriptions read in San Francisco and other cities of California for the U. S. P.-N. F. Prescription Ingredient Survey.

Fluidextracts.	Per 10,000 Prescriptions.				N. Y.	1931. Md.	Cal.
	1885.	1895.	1908.	1927.			
Used 25 times or more	20	9	4	5	3	3	0
Used 10 to 24 times	25	20	10	0	2	1	1
Used 2 to 9 times	41	56	74	41	21	9	8
Used once or less	13	8	35	24	28	1	5
Total U. S. P. and N. F.	99	93	123	79	54	14	14
U. S. P. and N. F. not used	84	90	60	113	129	169	169
Total	183	183	183	183	183	183	183
Unofficial ones used	25	26	22	16	5	2	1

The following list of fluidextracts represents those which occur 10 or more times in each 10,000 prescriptions in the tabulation above:

Fluidextracts.	Per 10,000 Prescriptions.				N. Y.	1931. Md.	Cal.
	1885.	1895.	1908.	1927.			
Aconite	21		10				
Apocynum		12					
Aurant. Amara	11						
Belladonna Radix	37	33	16				
Buchu		66	22				
Buchu Comp.	190						
Calumba	24	19					
Cannabis		12					
Cascara Sagrada	100	56	82	77	48	45	
Cascara Sagrada Arom.			59	84	92	71	16

Fluidextracts.	Per 10,000 Prescriptions.					N. Y.	1931. • Md.	Cal.
	1885.	1895.	1908.	1927.				
Castanea		28						
Cimicifuga	27	15						
Cinchona	29	16						
Coca		26						
Colchicum Seed	12							
Condurango							10	
Coto		10						
Cubeb			11					
Digitalis	14	19						
Ergot	239	108	47	66	54			
Eriodictyon	14							
Eucalyptus	10							
Frangula		13						
Gelsemium	53	17						
Gentian	24	22	10					
Geranium	19							
Glycyrrhiza	82	52	27	42	17			
Gossyp. Cort.	13	12						
Grindelia			10		37			
Hamam. Folia	17							
Humulus	16							
Hydrastis	86	24	23	28				
Hyoscyamus	44	18	16					
Ipecac		28	12					
Juniper	37							
Kava	10							
Lappa	18							
Leptandra	14							
Nux Vomica	20	16						
Pareira	10							
Phytolacca		20						
Podophyllum	39	10						
Prunus Virg.	54							
Rhubarb	42							
Rumex	34							
Sarsaparilla	24							
Sarsaparilla Comp.	19							
Scilla	12	22						
Scoparius	11							
Senega						10		
Senna	88							
Stillingia	15							
Taraxacum	86	28	18					
Triticum		12						
Uva Ursa	48	13						
Valerian	27							
Viburnum Prunif.	21							
Xanthoxylum	11							
Zea	10	14						
Zingiber	21							

THE U. S. P.-N. F. PRESCRIPTION INGREDIENT SURVEY OF 1931.

PRELIMINARY REPORT ON THE USE OF U. S. P. ITEMS IN NEW YORK STATE.

The object of this Survey is to obtain authentic information as to the names of the ingredients ordered in prescriptions, and the number of times that each ingredient is used in a definite number of prescriptions. Such information obtained in sufficiently large samples and from a sufficient number of different places in the United States should give a very fair picture of the prescription ingredients and their usage or occurrences in the United States.

The information regarding prescription ingredients and their frequency of occurrence in prescriptions compounded in drug stores in the United States will be of real value to the Subcommittee on Scope of the U. S. Pharmacopoeia and to the National Formulary Revision Committee.

It is recognized that a prescription pharmacy well located in the center of a large city, and filling from 30,000 to 150,000 prescriptions annually, will yield a very comprehensive list of items used in prescriptions. From indications given by data already in hand, about one third of the total prescriptions compounded in the United States are filled in stores and hospital pharmacies in which the preparation of medicines and the compounding of prescriptions is the principal business of the pharmacy, and in which the number of prescriptions filled annually is relatively large.

Another third of the prescriptions is filled in stores in which the average annual number of prescriptions compounded is well above 5000; and the final third is compounded in the smaller type of stores in which the average annual number of prescriptions filled is considerably below 5000. Therefore, to obtain a true picture, not only of the names of the ingredients but of the number of occurrences of each in the prescriptions of the United States, it is necessary to obtain the "sample" in each locality along these lines.

Based on the data mentioned above, 10,000 prescriptions were read in a large prescription store in New York City, a second 10,000 were read in five New York City stores having a high-grade prescription business, a third 10,000 were read in the medium and smaller type of stores in Buffalo and a fourth 10,000 in stores doing a small prescription business (sometimes less than 1000 annually) in smaller towns of New York State. These groups of 10,000 prescriptions each are presented in Columns I, II, III and IV, respectively.

The fourth lot of 10,000 prescriptions from small stores in New York State is included to insure a very full representation of this type of drug stores in the Survey.

The Collection of the Prescription Data.—In New York City the prescriptions were all read by Mr. Harry Harris, a prescription pharmacist, under the direct supervision of J. Leon Lascoff. In Buffalo and New York State the prescriptions were read by Professor Leon Monell or under his direct supervision. By engaging trained prescription men to give their full attention to the work much more accurate and uniform results were obtained than if the work had been left to individual pharmacists, busy in their stores and unfamiliar with the methods of the Survey.

The names of the ingredients and the number of occurrences in each block of 500 prescriptions were entered upon a specially devised form. The prescriptions

were all originals, were properly distributed throughout the year in each store and included the proper proportion of narcotic prescriptions, but no prescriptions from the liquor prescription file.

As these reports were received in the office of Chairman Gathercoal, the information was transferred to large tabulation forms, upon the pages of which all of the titles of U. S. P. VIII, IX and X, and N. F. III, IV and V were printed in alphabetical arrangement with numerous cross references. Non-official and Proprietary items were listed on blank sheets, which were incorporated with the printed sheets. On this form the data from 30 blocks of 500 prescriptions each can be entered. Similar data, but from a somewhat smaller number of prescriptions have been received from California (San Francisco) and from Maryland (Baltimore) and Missouri (St. Louis). The total number of prescriptions entering into this Survey will exceed 120,000 and the selection of these prescriptions is based upon the most approved method.

Comparison with Other Surveys.—To give added value to the U. S. P.-N. F. Prescription Ingredient Survey, a comparison with six other earlier surveys has been made. These earlier surveys begin with one made by Albert Ebert in 1885 and extend to the survey made by Chairman E. Fullerton Cook in 1929-1930. These surveys will be arranged in parallel columns and thus a sweeping view of the prescription ingredients of the last fifty years will be made available.

Preparation of the Reports.—The total number of Official items in the New York State portion of the Survey is 781, and the number of Unofficial and Proprietary items is 2017, or a total of 2798 different items from 40,000 prescriptions. When the returns from the other three states are completed, the total number of items actually encountered in the Survey and entered in the report will approach 3500. This enormous number of items, with the figures from seven distinct surveys will constitute a very large volume of statistical information. Such a mass of statistics will be of relatively little interest to the great majority of pharmacists and medical men. Therefore, it becomes necessary to break down this information into a considerable number of separate reports dealing more specifically with certain phases of the information.

This report from New York State is designed to give an early view of the items used in prescriptions and should prove of real interest to many pharmacists in New York State as well as in all sections of the country.

INGREDIENTS OCCURRING IN PRESCRIPTIONS IN NEW YORK STATE.

COLUMN I.

10,000 prescriptions from J. Leon Lascoff's Prescription Pharmacy, New York City.

	Ingredients.		Occurrences.	
	No. of.	Per cent of.	No. of.	Per cent of.
Official in U. S. P. X.....	409	25.86	15,544	64.52
Official in N. F. V.....	163	10.33	2,385	9.90
Other Items*.....	1006	63.81	6,160	25.58
Total.....	1578	100.00	24,089	100.00

Each prescription averages 2.4 ingredients.

There are 621 monographs of drugs, chemicals and preparations in the U. S. P. X; as 409 of these are represented in this report, it indicates that 65.7 per cent of the total U. S. P. X items are used in these 10,000 prescriptions.

Of the 758 monographs of drugs, chemicals and preparations in the N. F. V, 163 appear in Column I; this is 21.4 per cent of the total.

COLUMN II.

10,000 prescriptions from five moderate-sized drug stores in New York City.

	Ingredients.		Occurrences.	
	No. of.	Per cent of.	No. of.	Per cent of.
Official in U. S. P. X.....	423	26.86	18,116	70.21
Official in N. F. V.....	194	12.32	2,390	9.26
Other Items*.....	958	60.82	5,296	20.53
Total.....	1575	100.00	25,802	100.00

Each prescription averages 2.6 ingredients.

*See note on page 280—A Note on "Other Items."

Of the total number of items in the

- U. S. P. X.....68.12 per cent appear in Column II.
- N. F. V.....25.80 per cent appear in Column II.

COLUMN III.

10,000 prescriptions from ten smaller drug stores in Buffalo, New York.

	Ingredients.		Occurrences.	
	No. of.	Per cent of.	No. of.	Per cent of.
Official in U. S. P. X.....	349	26.78	9,859	54.79
Official in N. F. V.....	126	9.67	1,601	8.90
Other Items*.....	828	63.55	6,534	36.31
Total.....	1303	100.00	17,994	100.00

Each prescription averages 1.8 ingredients.

Of the total number of items in the

- U. S. P. X.....56.2 per cent appear in Column III.
- N. F. V.....16.6 per cent appear in Column III.

COLUMN IV.

10,000 prescriptions from eleven smaller drug stores in various towns in New York State.

	Ingredients.		Occurrences.	
	No. of.	Per cent of.	No. of.	Per cent of.
Official in U. S. P. X.....	351	28.49	8,951	53.57
Official in N. F. V.....	127	10.31	1,418	8.49
Other Items*.....	754	61.20	6,336	37.94
Total.....	1232	100.00	16,705	100.00

Each prescription averages 1.7 ingredients.

* See note on page 280—A Note on "Other Items."

Of the total number of items in the

- U. S. P. X.....56.5 per cent appear in Column IV.
- N. F. V.....16.8 per cent appear in Column IV.

SUMMARIES.

Ingredients from.	I.	II.	III.	IV.
U. S. P. X.....	409	423	349	351
N. F. V.....	163	194	126	127
Other Items*.....	1,006	958	828	754
Total.....	1,579	1,575	1,303	1,232
Occurrences from.	I.	II.	III.	IV.
U. S. P. X.....	15,544	18,116	9,859	8,951
N. F. V.....	2,385	2,390	1,601	1,418
Other Items*.....	6,160	5,296	6,534	6,336
Total.....	24,089	25,802	17,994	16,705

Average Number of Ingredients per Prescription.

	I.	II.	III.	IV.
	2.4	2.6	1.8	1.7
Percentage Used of.	I.	II.	III.	IV.
U. S. P. X Items.....	65.7	68.12	56.2	56.5
N. F. V Items.....	21.4	25.8	16.6	16.8
N. F. V, Part I, Items.....	25.4	30.4	21.2	21.2

Total number of items found in the 40,000 prescriptions in New York State:

508 U. S. P. X items out of a total of 621 U. S. P. X items
273 N. F. V items out of a total of 758 N. F. V items
2017 Other Items*
<hr/>
2798 Total

* See note below—A Note on "Other Items."

A NOTE ON "OTHER ITEMS."

While definite rules for the determination of proprietary items have been presented by the Commission on Proprietary Medicines, yet we have not attempted to separate the items designated here as "Other Items" into "Unofficial Items" and "Proprietary Items." If we designate the U. S. P. and N. F. Items, the undesignated items can be classified by each reader as he thinks best.

However, the value of these items in the Survey is relatively small. Of the 2017 items in this group in the New York portion of the Survey, representing 40,000 prescriptions, 787 items occur but once, 797 occur from 2 to 9 times and only 433 occur more than 10 times. The 1584 items in this group that occur less than 10 times each, have a total of occurrences in the 40,000 prescriptions of 3944 times, while the three leading U. S. P. items, namely Codeine Sulphate, Sodium Bicarbonate and Tincture of Nux Vomica, have total occurrences in the 40,000 prescriptions of 4484 times.

The proportion of items that are unquestionably "Unofficial" in the group of "Other Items" is relatively high. This large number of Unofficial items is due especially to many tablets of official drugs. In every case where a tablet was specified in the prescription, it was entered on the reports as a tablet and these are counted as "Unofficial," except for the few official ones. Also in a few instances where a drug or chemical (proprietary) occurs on the market only in tablet form, it was entered in the data as tablet even if the word "tablet" was not specified in the prescription.

The same rule holds true for all ampuls, pills, enteric-coated pills and some other minor forms of pharmaceutical preparations especially of proprietary nature.

However, a somewhat different procedure was followed with percentage solutions and capsules. Both of these pharmaceutical preparations are being increasingly produced by manufacturers and marketed, frequently, under proprietary names. Yet the prescription pharmacist has but little trouble or work in making these at the prescription counter and when the solutions or capsules can be prepared from common drugs or chemicals, the prescriptionist usually does so prepare them. Therefore, in cases where solutions or capsules were specified, and the preparation is not listed by a manufacturer or a proprietor, the items of the solution or capsule

were entered separately in our tabulations and not under the name of capsules or solution. Instances of this type may be cited as follows: Sol. Argyrol, 10% was entered as Water and Argyrol; Capsules Acid Acetylsalicylic, 5 gr. were entered under the Acid.

NUMERICAL RANK AND OCCURRENCES OF THE ITEMS
IN THE
NEW YORK STATE PORTION OF THE SURVEY.

The following list shows all of the items in the New York State portion of the Survey according to the numerical rank. The number after each item indicates the occurrences per 10,000 prescriptions. The items are listed by name as far down as those occurring 10 times per 10,000 prescriptions. Those occurring a fewer number of times than this are grouped without being named.

1. Aqua Destillatæ U. S. P.	680.75	42. Liq. Potassii Arsenitis U. S. P.	101.00
2. Codeinæ Sulphas U. S. P.	487.50	43. Codeina U. S. P.	100.00
3. Sodii Bicarbonas U. S. P.	337.00	44. Zinci Sulphas U. S. P.	100.00
4. Tinctura Nucis Vomicae U. S. P.	296.50	45. Quininæ Sulphas U. S. P.	99.75
5. Acidum Acetylsalicyl. U. S. P.	283.25	46. Adeps Lanæ Hydrosus U. S. P.	97.75
6. Glycerinum U. S. P.	274.00	47. Morphinae Sulphas U. S. P.	96.25
7. Elix. Pepsini Comp. N. F.	251.50	48. Phenolphthaleinum U. S. P.	94.75
8. Sodii Bromidum U. S. P.	243.50	49. Tablets Luminal	92.75
9. Tinctura Belladonnae U. S. P.	226.25	50. Fldxt. Casc. Sagr. Aro. U. S. P.	92.50
10. Sodii Salicylas U. S. P.	224.50	51. Lactosum U. S. P.	90.50
11. Acetphenetidinum U. S. P.	215.00	52. Magnesii Oxidum U. S. P.	86.25
12. Ammonii Chloridum U. S. P.	202.50	53. Liquor Epinephrinae HCl. U. S. P.	85.00
13. Tinctura Digitalis U. S. P.	185.25	54. Tr. Gentianæ Comp. U. S. P.	83.00
14. Phenol U. S. P.	175.25	55. Cerii Oxalæ	82.25
15. Elixir Luminal	173.00	56. Syrupus U. S. P.	82.00
16. Tinctura Opii Camph. U. S. P.	161.75	57. Ephedrine Inhalant	79.25
17. Bismuthi Subnitras U. S. P.	159.75	58. Sedatole	79.25
18. Phenobarbitalum U. S. P.	156.75	59. Alcohol U. S. P.	78.00
19. Menthol U. S. P.	140.50	60. Antipyrina U. S. P.	77.75
20. Mist. Rhei Comp. N. F.	138.75	61. Atropina Sulphas U. S. P.	76.25
21. Amidopyrina U. S. P.	138.25	62. Aqua Menthae Pip. U. S. P.	76.00
22. Caffeina Citrata U. S. P.	137.50	63. Mist. Glycyrrh. Comp. U. S. P.	76.00
23. Potassii Iodidum U. S. P.	136.00	64. Thyroideum Siccum U. S. P.	75.00
24. Tinctura Hyoseyami U. S. P.	133.50	65. Chloralis Hydras U. S. P.	74.00
25. Zinci Oxidum U. S. P.	133.50	66. Petrolatum Liquidum U. S. P.	72.75
26. Bismuthi Subcarbonas U. S. P.	130.25	67. Elix. Terpini Hydratis N. F.	72.50
27. Morphinae Sulphate	129.75	68. Petrolatum U. S. P.	70.75
28. Syrupus Tolu U. S. P.	129.00	69. Elix. Brom. Trium N. F.	70.50
29. Potassii Citras U. S. P.	128.00	70. Camphora U. S. P.	68.25
30. Strychninae Sulphas U. S. P.	125.75	71. Ungt. Aqua Rosæ U. S. P.	68.25
31. Phenylis Salicylas U. S. P.	123.25	72. Strontii Bromidum	68.00
32. Acidum Boricum U. S. P.	121.25	73. Tabs. Allonal	67.25
33. Acidum Salicylicum U. S. P.	119.75	74. Methylis Salicylas U. S. P.	65.75
34. Elixir Peptenzyme	117.50	75. Spt. Ammon. Anisat. N. F.	64.75
35. Elixir Lactopeptine	116.75	76. Codeinæ Phosphas. U. S. P.	63.75
36. Syrup Cocillana Comp.	111.00	77. Ungt. Hydrargyri Amm. U. S. P.	63.50
37. Syr. Pruni Virginianæ U. S. P.	108.50	78. Citrocarbonate	62.25
38. Tabs. Codeine Sulph.	106.50	79. Methenamina U. S. P.	61.50
39. Extractum Belladonnae U. S. P.	103.75	80. Syr. Ipecacuanhæ U. S. P.	61.25
40. Argento-Proteinum Mite U. S. P.	103.25	81. Calamina Preparata N. F.	60.00
41. Neo Silvol	101.50	82. Syrup Thiocol	58.75

83. Elix. Glycerophos. Co. N. F.	58.50	138. Tabs. Empirin Comp.	33.00
84. Neurophosphates	58.50	139. Liq. Amm. Acetatis U. S. P.	32.75
85. Sp. Aethylis Nitrit. U. S. P.	58.25	140. Hydrarg. Ammoniatum U. S. P.	32.50
86. Tabs. Strych. Sulph.	58.00	141. Chlorodyne	32.00
87. Elix. Peps. et Rennin. Co. N. F.	57.00	142. Pepsinum U. S. P.	32.00
88. Elix. Aromaticum U. S. P.	55.50	143. Tr. Valerianæ U. S. P.	31.75
89. Potassii Bromidum U. S. P.	55.50	144. Cherocol	31.00
90. Cascara Evacuant	54.75	145. Rheum U. S. P.	30.25
91. Cocainæ Hydrochlor. U. S. P.	54.75	146. Liq. Calamina N. F.	30.00
92. Tinctura Aconiti U. S. P.	54.75	147. Taka Diastase Liquid	30.00
93. Liq. Pot. Iod. N. F.	54.50	148. Ephedrol	29.75
94. Fldxt. Ergotæ U. S. P.	54.25	149. Acid. Hydrocyanicum Dil.	29.50
95. Pulv. Ipecac. et Opii U. S. P.	53.50	150. Bi-So-Dol	29.25
96. Acid. Hydrochl. Dil. U. S. P.	52.50	151. Sol. Hexylresorcinol	29.00
97. Potassii Acetas U. S. P.	52.50	152. Potassii Bicarbonas U. S. P.	28.00
98. Hydrarg Chlor. Mit. U. S. P.	52.25	153. Camphora Monobromata	27.75
99. Oleum Menthæ Pip. U. S. P.	51.00	154. Pituitarium U. S. P.	27.75
100. Liq. Calcii Hydrox. U. S. P.	50.25	155. Ungt. Zinci Oxidi U. S. P.	27.75
101. Tinctura Opii U. S. P.	50.25	156. Ungt. Hydrarg. Oxidi U. S. P.	27.50
102. Mag. Oxid Pond. U. S. P.	50.00	157. Arsenoferratose	27.25
103. Magnesii Carbonas U. S. P.	48.00	158. Liq. Amm. Acetatis N. F.	27.00
104. Aqua Rosæ U. S. P.	47.75	159. Oleum Eucalypti U. S. P.	27.00
105. Arseni Trioxidum U. S. P.	47.75	160. Oleum Pulveratum U. S. P.	27.00
106. Magma Magnesiae U. S. P.	47.75	161. Elix. Terp. Hyd. et Cod. N. F.	26.75
107. Fldxt. Casc. Sagr. U. S. P.	47.50	162. Syr. Ferri Iodidi U. S. P.	26.25
108. Petrolatum Album U. S. P.	47.50	163. Sodii Phosphas U. S. P.	26.00
109. Oleum Theobromatis U. S. P.	47.25	164. Potassii Chloras U. S. P.	25.75
110. Syrupus Aurantii U. S. P.	47.25	165. Syr. Hypophos. Co. N. F.	25.25
111. Syr. Sarsap. Comp. U. S. P.	46.75	166. Viosterol	25.25
112. Ovarian Substance and Residue	46.00	167. Iodex Methyl Salicyl.	24.75
113. Sulphur Præcipitat. U. S. P.	45.75	168. Syr. Acidi Hydriodici U. S. P.	24.75
114. Elix. Ferri, Quin. et Strych. N. F.	45.50	169. Syr. Rubi Idæi N. F.	24.75
115. Æthylmorph. Hydrochl. U. S. P.	45.00	170. Nitroglycerine	24.25
116. Resorcinol U. S. P.	45.00	171. Tabs. Amytal	24.00
117. Metatone	43.75	172. Pantopon	23.75
118. Syrupus Scillæ U. S. P.	42.25	173. Tabs. Nitroglycerine	23.75
119. Magma Bismuthi N. F.	42.00	174. Iodex	23.50
120. Neurosine	42.00	175. Syr. Scillæ Comp. U. S. P.	23.50
121. Sodii Boras U. S. P.	42.00	176. Oleum Morrhuæ U. S. P.	23.25
122. Tinctura Benzoini Comp. U. S. P.	42.00	177. Oleum Ricini U. S. P.	23.00
123. Liq. Acidi Borici	41.25	178. Liq. Ferri Pept. et Man. N. F.	22.75
124. Prescriptions by Special No.	41.25	179. Sacrosum U. S. P.	22.75
125. Oleum Olivæ U. S. P.	40.75	180. Tabs. Urotropin	22.25
126. Tabs. Pantopon	38.75	181. Cheracol and Codeine	22.50
127. Tr. Bryonia N. F.	37.75	182. Liq. Sod. Bor. Co. N. F.	22.50
128. Tr. Ferri Chloridi U. S. P.	37.75	183. Chloretone Inhalant	22.25
129. Mist. Pectoralis N. F.	37.50	184. Suxiphen	22.00
130. Sp. Amm. Aromaticus U. S. P.	37.50	185. Tabs. Pyramidon	22.00
131. Elix. Alurate	36.25	186. Sol. Ephedrine Sulph.	21.75
132. Tabs. Thyroid	35.25	187. Tr. Ipecac. N. F.	21.25
133. Tabs. Tolyisin	34.75	188. Cerose	21.00
134. Tr. Sanguinariæ N. F.	34.75	189. Pasta Zinci N. F.	21.00
135. Theobromin. Sodio-Salicyl. U. S. P.	34.25	190. Tinctura Iodi U. S. P.	21.00
136. Sodii Iodidum U. S. P.	34.00	191. Tabs. Caroid and Bile Salts	20.75
137. Caripeptic Liquid	33.00	192. Tabs. Cinchophen	20.50
		193. Citronin	20.25

194. Syr. Euphorbiæ Co. N. F.	19. 75	249. Potassii Permanganas U. S. P.	14. 50
195. Ext. Aloes	19. 50	250. Terpini Hydras U. S. P.	14. 25
196. Calcii Glycerophos. U. S. P.	19. 25	251. Mist. Helonin Comp.	14. 00
197. Ext. Opii N. F.	19. 25	252. Caps. Caffeine Comp.	13. 75
198. Sodii Citras U. S. P.	19. 25	253. Pepto-Bismol	13. 75
199. Tr. Benzoini U. S. P.	19. 25	254. Sp. Glyceryl. Nitrat. U. S. P.	13. 75
200. Hemaboloids Arsen. with Strych.	18. 75	255. Tabs. Triple Bromides	13. 75
201. Luminal-Sodium	18. 75	256. Sanmetto	13. 50
202. Tabs. Nephritin	18. 75	257. Tr. Lobeliæ U. S. P.	13. 50
203. Tabs. Peralga	18. 75	258. Aq. Hamamelidis N. F.	13. 25
204. Caps. Ephredine Sulph.	18. 50	259. Caps. Oxyl Iodide Comp.	13. 25
205. Ferrum Reductum U. S. P.	18. 50	260. Liniment. Saponis U. S. P.	13. 25
206. Taka Diastase	18. 25	261. Liquid Digifoline	13. 25
207. Tr. Cannabis	18. 25	262. Liquor Iodi Comp. U. S. P.	13. 25
208. Vitamexol	18. 25	263. Tabs. Atophan	13. 00
209. Tabs. Morph. et Atropine Sulph.	18. 00	264. Massa Ferri Carb. U. S. P.	13. 00
210. Vin. Colch. Sem.	18. 00	265. Anthrarobin	12. 75
211. Sodii Chloridum U. S. P.	17. 75	266. Incretone	12. 75
212. Tabs. Ovar. Subs. et Residue	17. 75	267. Sol. Ephedrine Hydrochlor.	12. 75
213. Tr. Cinchonæ Comp. U. S. P.	17. 75	268. Sol. Mercurochrome	12. 75
214. Caps. Amytal Comp.	17. 50	269. Cignolin	12. 50
215. Elix. Lascatone Comp.	17. 50	270. Elix. Chloro Calc.	12. 50
216. Gray's Glycerin Tonic Co.	17. 50	271. Thymol U. S. P.	12. 50
217. Syr. Acidi Citrici U. S. P.	17. 50	272. Ungt. Belladonnæ U. S. P.	12. 50
218. Salicionyl	17. 25	273. Hayden's Viburnum Comp.	12. 25
219. Caps. Ergo ApioI	17. 00	274. Elix. Cinchona Alk. N. F.	12. 25
220. Adrenalin Chloride Inhalant	16. 75	275. Ext. Ergotæ Aquosum N. F.	12. 25
221. Extract. Cascara Sagr. U. S. P.	16. 75	276. Infusum Digitalis U. S. P.	12. 25
222. Sp. Chloroformi U. S. P.	16. 75	277. Tabs. Calcidin	12. 25
223. Syr. Ipecac et Opii N. F.	16. 75	278. Tr. Cardamomi Comp. U. S. P.	12. 25
224. Fldxt. Glycyrrhizæ U. S. P.	16. 50	279. Tr. Strophanthi U. S. P.	12. 25
225. Sp. Menthæ Pip. U. S. P.	16. 50	280. Liq. Picis Carbonis N. F.	12. 00
226. Iodum U. S. P.	16. 25	281. Lot. Plumbi et Opii N. F.	12. 00
227. Liniment. Chlorof. U. S. P.	16. 25	282. Pascarnata	12. 00
228. Tabs. Hormotone	16. 25	283. Tr. Stramonii U. S. P.	12. 00
229. Tabs. Sod. Salicyl. Eff.	16. 25	284. Mistura Cretæ U. S. P.	11. 75
230. Tragacantha U. S. P.	16. 25	285. Tabs. Atropine Sulph.	11. 75
231. Elix. Brom. et Belladonna. Co.	16. 00	286. Mucilago Acaciæ U. S. P.	11. 75
232. Tr. Persionis N. F.	16. 00	287. Sodii Biphosphas U. S. P.	11. 75
233. Tabs. Codeine Phos.	15. 75	288. Sodii Nitris U. S. P.	11. 75
234. Digifortis	15. 50	289. Magnesii Sulphas U. S. P.	11. 50
235. Ephedrine Sulphate	15. 50	290. Pancreatinum U. S. P.	11. 50
236. Tabs. Ovarium	15. 50	291. Ungt. Acidi Borici U. S. P.	11. 25
237. Tr. Lavand. Comp. U. S. P.	15. 50	292. Creosotum U. S. P.	11. 00
238. Compound Ephedrine Inhalant	15. 25	293. Elix. Gent. Glycer. N. F.	11. 00
239. Neocinchophen	15. 25	294. Tabs. Medinal	11. 00
240. Sodii Benzoas U. S. P.	15. 25	295. Tolysin	11. 00
241. Syr. Amm. Hypophos. N. F.	15. 25	296. Urolithia	11. 00
242. Caprokol	15. 00	297. Adrephine	10. 75
243. Elix. Ferri Quin. et Strych. Phos.	15. 00	298. Creta Præparata U. S. P.	10. 75
244. Phospho-Soda	15. 00	299. Eucalyptol U. S. P.	10. 75
244a. Tr. Capsicum U. S. P.	14. 75	300. Tabs. Bland Comp.	10. 75
245. Agarol	14. 75	301. Ungt. Kerolysin	10. 75
246. Liquor Sedans	14. 75	302. Caps. Farastan	10. 50
247. Sod. Glycerophosphas. N. F.	14. 75	303. Digalen	10. 50
248. Tr. Zingiberis U. S. P.	14. 75	304. Ergatole	10. 50

305. Petrolagar and Phenolphth.	10.50	311. Lactopeptine	10.00
306. Suprarenal Substance and Ext.	10.50	312. Oleum Cinnamomi U. S. P.	10.00
307. Tumenol	10.50	313. Oleum Santali U. S. P.	10.00
308. Ungt. Sulphuris U. S. P.	10.50	314. Syrupus Senegæ U. S. P.	10.00
309. Balm Analgesique Bengue	10.25	315. Syr. Tolu and Codeine Comp.	10.00
310. Ol. Amygdalæ Exp. U. S. P.	10.25		

A NOTE ON SYNONYMS AND PROPRIETARIES.

The original instructions to the prescription readers included a statement to the effect that duplications should be avoided as much as possible, and no instructions were given (an unfortunate omission perhaps) to carefully preserve the data on synonyms. In a number of instances the reader also has not carefully preserved the distinction between official items and proprietary trade names which are synonyms for these items.

Sometimes it is very difficult to determine how an item written in a prescription is to be classified. For instance Elix. Lact. Pep. is of very common occurrence; is it to be translated Elixir Lactated Pepsin or Elixir Lactopeptine? Another interesting item is Elix. Lactopepsin; is this Elixir Lactated Pepsin or Elixir Lactopeptine? Again, is Aspirin to be listed as Acid Acetylsalicylic or not? It is widely manufactured by many firms and usually the synonym "Acetylsalicylic Acid" accompanies the name "Aspirin."

Therefore, in the list of items in this report, it has been the practice to include all synonyms under the official title, including proprietary trade names where the proprietary article is acknowledged to be synonymous with the official item.

ACKNOWLEDGMENTS.

The U. S. P.-N. F. Prescription Ingredient Survey involves an enormous amount of work. The joint appropriation made for the expense of the Survey is relatively small. If it were not for the splendid coöperation and gratuitous service of a number of splendid helpers it would not be possible to complete this work.

In connection with the New York Section of the Survey, especial acknowledgment should be made for the help of J. Leon Lascoff in New York City and of Prof. Leon Monell in Buffalo. Each of these men supervised the reading of 20,000 prescriptions. Mr. Harry Harris in New York City and a number of students in the Buffalo College of Pharmacy were engaged to carry on the actual reading work, though Prof. Monell himself did much of this in Buffalo. It takes from 8 to 10 hours to read 1000 prescriptions and enter the data on the first form.

The transfer of the data in the office of Chairman Gathercoal and its tabulation requires at least as much more time. Mr. Gerston Bruch, instructor in the University of Illinois School of Pharmacy, has handled much of this work. The important items of the U. S. P. and N. F. and the major proprietary items are not so difficult, but the thousands of unofficial and minor proprietary items add enormously to this work.

The New Jersey House has passed a bill (A 224) to prohibit the use of the term "pharmacy" or drug store by establishments other than those supervised by a registered pharmacist.