

his reputation by fitting glasses for correcting vision when he is aware that his patron needs to consult a physician or surgeon.

The only reason for presenting this decision in these columns is thereby to direct attention to proposed measures, enactments and decisions which may in a somewhat similar way affect the drug business and pharmacy; members of legislative committees know the dangers of adverse legislation and also of that which seeks to grant special favors or privileges. Laws applying to pharmacy should protect the people and give them better service.

President Harding is said to favor a federal department of Public Health; pharmacy as a branch of medicine should receive due consideration in the measure which will provide for its establishment.

E. G. E.

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## THE MEMBERSHIP OF THE AMERICAN PHARMACEUTICAL ASSOCIATION.

BY WM. B. DAY.

In view of the statements that have been made from time to time concerning the growth or lack of growth in membership of the American Pharmaceutical Association, it seems worth while to present in tabular form a comparison of the membership of the Association during the past seven years, the period during which the writer has occupied the offices of General Secretary and Chairman of the Membership Committee. With the assistance of Mr. Wm. Mittelbach, who for a number of years was Chairman of the Membership Committee and who is deeply interested in the growth of the Association, the following tabulations\* of the membership by states and cities have been prepared.

The comparison of the total membership year by year beginning with 1914 is of interest inasmuch as it reveals the fact that the total increase in membership in these seven years amounts to 1096 members, or 46 percent. Explanatory of these figures, attention should be called to the fact that during the seven years, from 1914 to the present time, 3430 new members were added—enough to have more than doubled the membership. The resulting gain of only 1096 means that in seven years 2334 members have been lost through suspension, resignation or death. While an average annual increase of six percent is rather small, there is encouragement in the fact that during the last two years the average increase has been 15% and 11%, respectively.

As might be expected, the states having the largest population have as a rule the largest membership, but even here there are other factors to be considered. Density of population is a favorable factor; for example, Ohio, with about 20% larger population than Texas, has more than twice as many A. Ph. A. members. Massachusetts has 40% more members than Michigan and double the number of members California has, while the three states rank close together in population. New Jersey, with a population 10% less than Missouri, has 25% larger membership in the A. Ph. A. Energetic membership campaigns exert great influence, thus Virginia

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\* These figures were compiled from the geographical lists of members published in the Year Book, Vols. 1-7 and the manuscript for Vol. 8 now in press.

and Tennessee, with an equal population, are very disproportionate in their A. Ph. A. membership, Virginia having nearly four times as many members as Tennessee; Minnesota has nearly five times as many members as Kentucky though of nearly the same population. In great measure, large cities mean proportionately more A. Ph. A. members, yet Table No. 2 shows that other factors are to be considered. Thus, Detroit, with a population about 20% larger than Boston, has more than twice as many A. Ph. A. members—a situation for which the large pharmaceutical industries in Detroit are in part responsible. Minneapolis, with a population considerably less than that of Milwaukee, has two and one-half times as large an A. Ph. A. membership. Havana, Cuba, makes an excellent showing with twenty-four A. Ph. A. members—twice as many as Omaha.

The selection of the city for the annual convention usually means a stimulus to membership. The growth of the A. Ph. A. membership in New Orleans during the past year, since announcement was made of the Crescent City for the meeting place, has been almost phenomenal, due, in large part, to the enterprise and activity of the local membership committee. The stimulus afforded the California membership by the San Francisco meeting of 1915 is another instance.

Active and successful local branches not only build up but *hold* the membership, as is well shown by the growth in membership in the cities of New York, Philadelphia and Chicago. The failure of the Wilkes-Barre Branch is indicated by the loss of more than half the members in that city during the past year. The energetic membership campaign carried on by the Virginia Branch has resulted in the high rank attained by that state and its capital, Richmond. Northwestern Branch has doubled the membership in the "Twin Cities."

While tabulation No. 1 shows that membership in many of the states has been stationary or nearly so and in a few instances has even decreased, in a number of states the membership has doubled, tripled or even quadrupled—in North Dakota nearly sextupled—during the past seven years—and the result as a whole cannot be called unsatisfactory. Our rate of growth has been notably accelerated since 1919, and, having acquired this momentum, a little more effort and a little better co-operation on the part of our members should soon place the Association in the position that it must rightfully hold as a national body.

At the present rate of growth, we will pass the 5000 mark within the next four years. It should be the effort of every member to bring this about, bearing in mind that it is not less important to hold the members already enrolled than to add new members to our organization.

TABLE 1.—MEMBERSHIP BY STATES.

	1914.	1915.	1916.	1917.	1918.	1919.	1920.	1921.
Alabama.....	15	17	17	17	23	21	19	42
Arizona.....	0	1	4	1	0	0	1	1
Arkansas.....	21	26	24	16	15	17	30	32
Alaska.....	2	2	3	3	3	4	3	2
California.....	90	82	94	102	94	75	74	73
Colorado.....	68	58	58	51	48	43	40	41
Columbia, District of....	34	34	34	35	33	34	39	39
Connecticut.....	19	18	18	30	30	26	28	26
Delaware.....	3	6	7	7	8	5	4	3
Florida.....	19	20	21	22	23	27	33	25

Georgia.....	13	20	16	18	15	12	17	18
Hawaiian Islands.....	2	1	1	1	1	1	1	1
Idaho.....	8	5	6	8	6	5	5	9
Illinois.....	180	177	179	185	202	252	264	333
Indiana.....	70	77	78	97	114	101	99	94
Iowa.....	46	50	56	53	44	45	45	68
Kansas.....	25	24	25	28	26	19	24	40
Kentucky.....	34	44	39	32	30	29	31	36
Louisiana.....	24	26	26	33	31	34	44	78
Maine.....	26	24	28	33	32	23	24	24
Maryland.....	73	75	73	75	72	65	66	70
Massachusetts.....	134	141	140	138	135	120	136	142
Michigan.....	57	119	106	106	99	103	108	109
Minnesota.....	43	45	47	55	50	97	138	174
Mississippi.....	9	8	9	15	17	14	15	18
Missouri.....	110	130	117	160	98	93	121	128
Montana.....	10	16	17	19	19	18	24	30
Nebraska.....	40	35	42	41	35	32	29	33
Nevada.....	1	2	2	2	3	3	2	2
New Hampshire.....	6	7	6	7	6	6	7	7
New Jersey.....	73	92	90	107	98	105	130	137
New Mexico.....	6	4	6	5	4	4	3	3
New York.....	228	268	299	364	382	385	420	421
North Carolina.....	15	18	17	25	26	22	32	31
North Dakota.....	9	8	8	12	20	24	44	50
Ohio.....	119	136	137	139	136	122	146	167
Oklahoma.....	13	13	15	14	16	13	21	22
Oregon.....	22	19	18	20	18	17	15	18
Pennsylvania.....	228	233	229	242	239	318	351	358
Philippine Islands.....	67	30	6	5	5	2	4	3
Porto Rico.....	2	2	2	1	2	4	5	5
Rhode Island.....	22	19	16	16	15	13	18	15
South Carolina.....	3	4	5	6	6	9	24	28
South Dakota.....	23	24	26	24	27	23	36	35
Tennessee.....	71	59	49	38	40	31	36	31
Texas.....	61	63	60	71	68	68	76	66
Utah.....	9	10	8	9	7	6	6	8
Vermont.....	17	16	15	16	11	14	14	10
Virginia.....	29	30	32	25	24	37	86	114
Washington.....	40	35	38	37	30	24	39	41
West Virginia.....	13	27	26	21	22	18	16	15
Wisconsin.....	38	37	37	37	41	39	36	41
Wyoming.....	5	2	2	0	0	2	2	4
Dominion of Canada.....	13	18	17	17	19	20	18	18
Cuba.....	32	28	29	37	35	31	40	41
In Foreign Lands.....	14	14	10	20	18	15	24	30
<b>TOTALS</b>	<b>2354</b>	<b>2497</b>	<b>2490</b>	<b>2698</b>	<b>2621</b>	<b>2690</b>	<b>3113</b>	<b>3450</b>

TABLE 2.—MEMBERSHIP IN THIRTY-FIVE CITIES.

	1914.	1915.	1916.	1917.	1918.	1919.	1920.	1921.
Los Angeles.....	13	8	9	11	12	10	13	11
San Francisco.....	36	34	35	36	31	24	20	23
Denver.....	34	34	33	33	30	28	29	29
Washington.....	34	34	34	35	35	34	39	39
Indianapolis.....	28	28	31	57	66	58	50	44

Louisville.....	15	19	17	12	12	12	14	15
New Orleans.....	21	20	19	23	20	29	32	56
Chicago.....	119	117	119	119	130	174	176	272
St. Louis.....	74	92	82	69	69	63	88	95
Kansas City.....	11	13	11	10	9	10	11	12
Baltimore.....	53	56	56	60	58	52	53	57
Boston.....	39	45	45	42	40	37	34	31
Detroit.....	35	87	77	79	72	72	74	78
Minneapolis.....	20	19	20	20	20	29	31	39
St. Paul.....	13	15	15	16	15	16	17	24
Omaha.....	12	11	15	14	13	11	12	12
Newark.....	13	14	15	19	15	17	22	21
Buffalo.....	15	16	16	15	19	17	15	14
Brooklyn.....	41	43	46	48	51	61	70	65
New York.....	106	130	153	205	220	221	249	244
Cincinnati.....	38	36	38	43	42	37	43	41
Cleveland.....	23	31	35	37	36	34	50	60
Columbus.....	22	32	29	21	20	17	17	15
Portland (Ore.).....	11	9	8	8	7	9	8	8
Philadelphia.....	112	120	121	129	128	141	159	171
Pittsburgh.....	34	30	30	30	32	31	34	32
Wilkes-Barre.....	.....	.....	.....	.....	.....	33	35	18
Manila.....	32	15	3	3	3	2	3	3
Providence.....	14	14	12	11	11	9	10	9
Nashville.....	38	28	22	14	13	11	15	10
Dallas.....	10	11	6	12	15	18	15	8
Richmond.....	9	10	9	11	11	15	28	42
Seattle.....	16	17	18	17	14	11	24	23
Milwaukee.....	14	16	14	16	20	16	13	15
Havana.....	.....	.....	21	27	24	20	25	24
35 Cities	1105	1204	1214	1302	1313	1379	1528	1660

## PHYTOCHEMICAL NOTES.\*

## No. 87. Methoxyl Determinations of Monarda Oils.

BY D. C. L. SHERK.†

The investigation of the methoxyl constituents of Monarda oils was undertaken in the hope that this additional constant for the oil would be useful and characteristic, and that, moreover, it might prove an aid in the identification and isolation of new constituents.

Ethers of the hydroxy derivatives of cymene are known to exist in a few oils. The dimethyl ether of hydrothymoquinone constitutes the bulk of arnica root oil,<sup>1,2</sup> and ayapana oil<sup>3</sup> and the oil of *Eupatorium capillifolium*.<sup>4</sup> The methyl ether of thymol occurs in "Sapphire oil"<sup>5</sup> and Pickles<sup>6</sup> claims to have isolated a monomethyl ether of hydrothymoquinone from *Cyprus origanum* oil which consists principally of carvacrol.

Accordingly Zeisel's method for the determination of the methoxyl value was applied to the oils. The apparatus was essentially that designed by Zeisel<sup>7</sup> and the procedure was practically the same; except that the gas carrying the vapors of alkyl halide was washed by passing through an alkaline solution of

\* From the laboratory of Edward Kremers.

† Fritzsche Brothers Fellow, 1919-1920.