

THE COMPARATIVE COST OF MEDICAL JOURNALS

BY ALFRED L. ROBERT, MEDICAL LIBRARIAN, AND HANS H. SCHALTENBRAND

The Library of the College of Physicians and Surgeons of Columbia University has made a study of the cost of its medical journals during 1930-1931. This was done in order to ascertain the cause of yearly deficits in its budget, which always occurred in the appropriations for subscriptions to periodicals. No difficulties were ever experienced with the allowances for American, British or French journals, but the estimates for German periodicals were frequently inaccurate due to the lack of reliable information concerning the number of volumes to be issued per year.

As is well known, the majority of German medical publications are priced per part or per volume when issued, and the number of volumes printed annually is gauged by the capacity of subscribers to absorb the output without too much indignation or open protest. It may also be truthfully stated that the prices of German journals are made, not always according to the cost of production, but in direct proportion to the known number of subscribers for each journal. In confirmation of this statement, witness the German publishers' reply (*) to the protest of the American Library Association against the increased cost of German periodicals, in which publishers caution libraries against cancellation of orders, because any decrease in the number of subscriptions will lead to an increase of prices for the remaining subscribers.

It is most unfortunate that the German publishers do not adopt the custom established by other nations of having fixed annual subscription rates as a guide for subscribers, and lower prices as an inducement to increase circulation. They could very easily regulate both production and price rates if they desired and thereby eliminate the causes for general complaint. Yet they prefer to issue periodic excuses for their extravagant charges, and tell us repeatedly of their efforts to induce cooperation between editors and writers as to the necessity of writing briefer articles.

(*) American Library Association, Bulletin, vol. 26, page 44, 1932.

All medical librarians know that no results of any such cooperation have as yet appeared; on the contrary, statistics show yearly increases in cost and even the volume of production. Individual subscribers here and abroad have resented this apparently indifferent attitude of German publishers, and many have cancelled their subscriptions because of the drain on their private resources. In fact so few libraries and physicians in Germany can afford to subscribe that one might be led to believe that these expensive journals are mainly published for the benefit and edification of foreign readers. The chief victims of the procedure are the medical libraries to which doctors now hopefully look for their reading matter. The librarian with limited resources endeavors to keep his files as complete as possible but soon discovers that his funds are exhausted, and that he must cancel other orders to keep his journal sets intact. While looking into the cause of the deficit he finds that the German publishers have issued numer-

ous supplementary volumes during the year, such as Festschriften, Ergänzungsbände, Sonderhafte, Beihefte, Abhandlungen, etc., thereby adding to the cost of subscriptions. Some of these supplementary parts have hardly any relation to the journals they are supposed to supplement, and catalogers have a trying time of it attempting to record their contents and to fit them into the sets where they belong.

Of course the desire to publish everything in sight is probably general today. The psychological cause may be the universal competition for priority or prestige and the consequent livelihood either ensures. Nevertheless, one cannot fail to be aware of the inordinate amount of undigested matter printed, the unfinished work prematurely published, and the many repetitions due to uncorrelated investigations. The volume and scope of medical literature, excluding these irrelevant efforts, are so enormous as to make it almost impossible for the teacher or investigator to be well read, even in his own field and about his own subject. Where, then, shall he find the time to follow those mental wanderings not directly pertinent to his work?

He could at least receive some encouragement from the publishers of German literature, who control the medical press of their country, employ its editors and pay for the papers printed in the medical journals. The remuneration of authors, we understand, varies from ten to sixty cents per page. Of course we do not begrudge this fee to the writer in view of the many difficulties under which he has to live and do his research work. The fact is mentioned merely to show that the publisher alone is master of the situation. We suspect too that the editors have not the freedom necessary to select critically the papers offered for publication, because so many articles of doubtful value are being printed in excellent German journals.

Another matter which has caused much protest and which could be curbed by the editors is the proverbial length of German papers. "Gründlichkeit" is no doubt a laudable quality, but it can be overdone, especially when readers of scientific literature everywhere are calling for shortcuts through the overwhelming mass of new material. In response to this prevalent demand for brevity, we note the appearance of new "Abstract" journals on many subjects which are intended to keep readers informed of the recent advances in medical science as reflected in current literature. "Review" journals have also contributed a very helpful service by publishing summaries of the literature on timely and vital topics. These articles, written by leading authorities, are highly selective and present factual information in brief form of great value to their readers.

Both kinds of journals satisfy the prevailing demand for conciseness and assist the individual reader, but they do not relieve the libraries of the necessity of buying the original literature to which they refer. Librarians threatened with budget decreases and those with very limited resources will have to prune their journal requirements with increasing care. They have no desire to dictate to publishers what procedures they should adopt or follow. But they do feel free, because their funds are involved, and because the selection of journals creates an administrative problem, to criticize what

they believe are wrong methods. They have also a suspicion that they know better than the publishers what journals they need and what expenses their budgets will stand. Hence they are convinced that a decided change in German publication methods must come if it is expected that foreign libraries will indefinitely renew their journal subscriptions.

This acute situation inspired the following study, in which we have attempted to correlate the per-page cost of periodicals with the number of volumes per title and the subscription prices actually paid by the College of Physicians and Surgeons from July 1930 to June 1931. In order to arrive at exact figures all supplements and irregular additions were ignored since they tended to confuse the issue. When only one volume had appeared during the year 1931, the corresponding volume for 1930 was used as a calculation basis.

The survey presents, we believe, many interesting comparisons by national groups and includes tables illustrating the cost of material, tables giving various relative percentages, and many figures showing averages. The values arrived at are, of course, relative values. The factors involved are too numerous to permit exact calculations which are true or final in every instance. Some periodicals appear weekly, others monthly, bi-monthly or only quarterly. Some have one volume per year, others two or three, while still others have as many as ten volumes in one year. Journals also differ in size, in quality of paper, in number and type of illustrations, and in the number of pages per volume. There are journals supported by endowments, others are partially subsidized by medical societies or commercial enterprises, while still others receive large revenues from their advertising programs. All these factors and many other influences govern the cost of production. They should be carefully considered while making comparisons and drawing conclusions even from the per-page cost figures.

The question of output is an entirely different matter. It is the chief factor in the excessive cost of German journals, it is the cause of the most frequent complaints from readers, and the bane of librarians who must provide the necessary funds for purchases.

We offer the following tables to librarians and publishers alike in an effort to bring about cooperation and to remedy a situation which is fast becoming intolerable. The tables, we believe, are self explanatory.

JOURNAL COST TABLES

A. American Journals.

Item	Title	Number of vols.	Total of pages	Cost per year	Cost per vol.	Cost per page Cents
1	Amer. Dent. Assn., Jl.....	1	2342	\$ 2.25	\$ 2.25	0.09
2	Amer. Jl. of Anatomy	2	986	15.00	7.50	1.52
3	Amer. Jl. of Dis. of Children....	2	2754	8.00	4.00	0.28
4	Amer. Jl. of Hygiene	2	1487	11.50	5.75	0.84
5	Amer. Jl. of Pathology	1	684	8.00	8.00	1.17

Item	Title	Number of vols.	Total of pages	Cost per year	Cost per vol.	Cost per page Cents
6	Amer. Jl. of Physiology	4	2863	30.00	7.50	1.04
7	Amer. Jl. of Psychiatry	1	1179	5.70	5.70	0.48
8	Amer. Jl. of Roentgenology	2	1429	10.00	5.00	0.69
9	Amer. Jl. of the Med. Sciences	2	1764	5.70	2.85	0.32
10	Amer. Med. Assn., Jl.	2	4264	7.00	3.50	0.16
11	Amer. Naturalist	1	576	4.90	4.90	0.85
12	Amer. Phar. Assn., Jl.	1	1360	4.00	4.00	0.29
13	Anatomical Record	4	1738	20.00	5.00	1.15
14	Annals of Med. History	1	720	10.00	10.00	1.39
15	Annals of Surgery	2	2105	9.50	4.75	0.45
16	Arch. of Dermatology	2	2258	8.00	4.00	0.35
17	Arch. of Internal Medicine	2	2082	5.00	2.50	0.24
18	Arch. of Neurol. & Psych.	2	2612	8.00	4.00	0.30
19	Arch. of Ophthalmology	2	1812	8.00	4.00	0.44
20	Biological Abstracts	1	2858	15.00	15.00	0.52
21	Chemical Abstracts	1	8211	6.50	6.50	0.07
22	Child Development	1	310	5.00	5.00	1.61
23	Dental Cosmos	1	1358	1.35	1.35	0.09
24	Dental Digest	1	822	0.90	0.90	0.10
25	Dental Items of Interest	1	990	1.35	1.35	0.13
26	Endocrinology	1	461	5.75	5.75	1.24
27	Federation Bulletin	1	384	1.00	1.00	0.26
28	Harvey Lectures	1	225	4.00	4.00	1.77
29	Hospital Progress	1	542	2.85	2.85	0.52
30	Human Biology	1	587	5.00	5.00	0.85
31	Hygeia	1	1182	2.50	2.50	0.21
32	International Clinics	1	1227	11.50	11.50	0.93
33	Internat. Jl. of Orthodontia	1	1351	6.00	6.00	0.44
34	Internat. Med. Digest	2	768	15.00	7.50	1.95
35	Internat. Surg. Digest	2	768	15.00	7.50	1.95
36	Johns Hopkins Hosp., Bull.	2	788	6.00	3.00	0.76
37	Journal of Allergy	1	568	7.50	7.50	1.32
38	Journal of Bacteriology	2	895	9.00	4.50	1.00
39	Journal of Biol. Chemistry	4	3279	20.00	5.00	0.61
40	Jl. of Bone & Joint Surgery	1	998	5.00	5.00	0.50
41	Jl. of Comparative Neurology	2	1070	15.00	7.50	1.40
42	Jl. of Experimental Medicine	2	2117	9.50	4.75	0.44
43	Jl. of Experimental Zoology	3	1387	22.50	7.50	1.62
44	Jl. of General Physiology	1	839	5.00	5.00	0.59
45	Jl. of Immunology	2	1049	9.00	4.50	0.85
46	Jl. of Industrial Hygiene	1	272	5.60	5.60	2.06
47	Jl. of Infectious Diseases	2	1046	4.75	2.38	0.45
48	Jl. of Lab. & Clin. Medicine	1	1315	6.50	6.50	0.49

Item	Title	Number of vols.	Total of pages	Cost per year	Cost per vol.	Cost per page Cents
49	Jl. of Nervous & Ment. Diseases	2	1552	9.50	4.75	0.61
50	Journal of Nutrition	1	536	5.00	5.00	0.93
51	Journal of Parasitology	1	242	3.00	3.00	1.24
52	Jl. of Pharm. & Exp. Therap.	3	1488	15.00	5.00	1.00
53	Jl. of Physical Chemistry	1	1360	9.50	9.50	0.69
54	Journal of Urology	2	1433	8.00	4.00	0.55
55	Med. Clinics of North America	1	1611	16.00	16.00	0.99
56	Medical Life	1	712	3.00	3.00	0.42
57	Medicine	1	506	5.00	5.00	0.98
58	Modern Hospital	2	1200	2.50	1.25	0.20
59	Natl. Acad. of Sciences, Proc.	1	843	4.85	4.85	0.57
60	New England Jl. of Medicine	2	2598	5.75	2.88	0.22
61	Organic Synthesis	1	119	1.48	1.48	1.24
62	Parents Magazine	1	1200	1.50	1.50	0.12
63	Physiological Reviews	1	682	6.00	6.00	0.88
64	Physiological Zoology	1	569	7.25	7.25	1.27
65	Progressive Medicine	4	1454	11.00	2.77	0.76
66	Psychological Clinics	1	296	3.00	3.00	1.01
67	Quart. Cumul. Index Medicus	2	2846	12.00	6.00	0.42
68	Quart. Review of Biology	1	498	4.75	4.75	0.95
69	Soc. f. Exp. Biology & Medicine	1	904	6.00	6.00	0.66
70	Stain Technology	1	160	1.50	1.50	0.93
71	Surg., Gynecology & Obstetrics	2	1938	12.00	6.00	0.62
72	Surg. Clinics of North America	1	1551	16.00	16.00	1.03
73	Yale Jl. of Biology & Medicine	1	470	3.00	3.00	0.62

B. British Journals.

1	Analyst	1	778	\$ 7.50	\$ 7.50	0.96
2	Annals of Tropical Medicine	1	601	5.63	5.63	0.93
3	Biochemical Journal	1	1978	15.00	15.00	0.75
4	Biometrika	1	427	12.00	12.00	2.52
5	Brain	1	556	6.00	6.00	1.08
6	British Dental Journal	1	1431	6.25	6.25	0.44
7	Brit. Jl. of Childrens Diseases	1	332	6.25	6.25	1.88
8	Brit. Jl. of Dermatology	1	612	10.50	10.50	1.71
9	Brit. Jl. of Exp. Pathology	1	524	10.00	10.00	1.90
10	Brit. Jl. of Surgery	1	738	9.00	9.00	1.22
11	British Medical Journal	1	3228	16.75	16.75	0.51
12	Cancer Review	1	879	7.50	7.50	0.85
13	Chemical Society, Journal	1	3029	28.75	28.75	0.94
14	Faraday Society, Transactions	1	865	13.00	13.00	1.50
15	Journal of Anatomy	1	548	10.00	10.00	1.82
16	Jl. of Exper. Biology	1	420	10.00	10.00	2.38
17	Journal of Hygiene	1	509	10.50	10.50	2.06

Item	Title	Number of vols.	Total of pages	Cost per year	Cost per vol.	Cost per page Cents
18	Jl. of Neurol. & Psychopathol.	1	384	7.50	7.50	1.18
19	Jl. of Obstetrics & Gynecology	1	991	11.00	11.00	1.11
20	Jl. of Pathology & Bacteriology	1	1182	10.00	10.00	0.84
21	Journal of Physiology	3	1543	22.50	7.50	1.45
22	Jl. of Tropical Medicine	1	396	7.50	7.50	1.89
23	Lancet	1	2836	12.50	12.50	0.64
24	London, Edinburgh & Dublin Phil. Magazine	2	2320	25.00	12.50	1.07
25	Nature	2	2012	14.25	7.13	0.70
26	Physiological Abstracts	1	755	10.50	10.50	1.39
27	Pickett Thompson Lab., Annals	1	470	10.00	10.00	2.12
28	Practitioner	2	1484	10.50	5.25	0.70
29	Quart. Jl. of Medicine	1	508	8.75	8.75	1.72
30	Quart. Jl. of Exp. Physiology..	1	391	10.52	10.52	2.69
31	Quart. Jl. of Micro. Sciences....	1	743	15.75	15.75	2.12
32	Quart. Jl. of Pharmacy.....	1	772	7.50	7.50	0.97
33	Royal Soc., Philosoph. Transact.	1	462	10.00	10.00	2.16
34	Royal Soc., Series "B," Proc....	2	1204	16.00	8.00	1.32
35	Soc. of Dyers & Colorists, Jl....	1	438	15.00	15.00	3.42

C. French Journals.

1	Académie des Sciences, c. r.....	2	3147	\$14.85	\$ 7.42	0.47
2	Aesculape	1	327	2.70	2.70	0.82
3	Annal. d'Anatomie Pathologique	1	1174	4.95	4.95	0.42
4	Annales de Chimie	2	1221	5.63	2.82	0.46
5	Annales de Dermatologie	1	1412	5.85	5.85	0.41
6	Arch. d'Anatomie, d'Histologie	2	952	13.96	6.98	1.46
7	Arch. d'Anatomie Microscopique	1	486	6.30	6.30	1.29
8	Archives de Biologie	1	553	9.45	9.45	1.70
9	Arch. de Médecine des Enfants..	1	792	3.60	3.60	0.45
10	Arch. des Maladies du Coeur ...	1	826	4.50	4.50	0.54
11	Arch. Intern. de Méd. Expérim.	1	648	9.45	9.45	1.45
12	Arch. Intern. de Physiologie.....	2	928	7.20	3.60	0.77
13	Chronique Médicale	1	325	2.10	2.10	0.64
14	Encéphale	1	847	6.75	6.75	0.79
15	Gynécologie et Obstétrique.....	2	1144	6.53	3.27	0.57
16	Institut Pasteur, Annales	2	1578	4.50	2.25	0.28
17	Institut Pasteur, Bulletin	1	1208	4.05	4.05	0.33
18	Journal de Chirurgie	2	2202	6.75	3.37	0.30
19	Journal de Physiologie	1	1090	6.30	6.30	0.57
20	Nourrisson	1	432	3.60	3.60	0.83
21	Presse Médicale	1	1815	6.30	6.30	0.34
22	Rec. des Travaux Chim. d. Pays-Bas	1	1229	6.60	6.60	0.53

Item	Title	Number of vols.	Total of pages	Cost per year	Cost per vol.	Cost per page Cents
23	Revue de Chirurgie	1	405	4.95	4.95	1.22
24	Revue de Médecine	1	897	4.95	4.95	0.55
25	Revue Française d'Endocrinol....	1	577	4.05	4.05	0.70
26	Revue Neurologique	1	2016	7.65	7.65	0.37
27	Soc. Chimique de France, Bull...	2	3692	9.00	4.50	0.24
28	Soc. de Biologie, c. r.	3	3850	7.88	2.63	0.20
29	Soc. de Chimie Biol., Bull.....	1	1452	4.50	4.50	0.31
30	Soc. Fran. d'Histoire d. l. Méd. 1	1	420	1.50	1.50	0.35
31	Soc. Méd. d. Hopitaux de Paris 1	1	1586	5.85	5.85	0.37

D. German Journals.

1	Anatomischer Anzeiger	2	1192	\$16.00	\$ 8.00	1.35
2	Anthropologischer Anzeiger	1	372	6.10	6.10	1.64
3	Arbeitsphysiologie	2	1251	31.50	15.75	2.51
4	Archiv der Pharmazie	1	706	5.00	5.00	0.70
5	Archiv f. Dermatologie	4	2444	92.25	23.06	3.77
6	Arch. f. Entwicklungsmechanik 3	3	2312	79.50	26.50	3.43
7	Arch. f. Exper. Pathologie	10	3786	75.00	7.50	1.97
8	Arch. f. Exp. Zellforschung.....	2	999	27.00	13.50	2.70
9	Archiv f. Gynakologie	5	3496	86.75	17.35	2.48
10	Archiv f. Hygiene	3	1163	30.00	10.00	2.57
11	Arch. f. Kinderheilkunde	4	1280	20.00	5.00	1.56
12	Arch. f. Klinische Chirurgie.....	5	4027	95.60	19.12	2.37
13	Archiv. f. Psychiatrie	4	3340	103.57	25.89	3.10
14	Arch. f. Schiffs- & Tropen-hyg. 1	1	674	7.50	7.50	1.11
15	Arch. f. Verdauungskrankheiten 3	3	1208	21.00	7.00	1.73
16	Beiträge z. Pathol. Anatomie....	3	2166	47.25	15.75	2.18
17	Berichte ü. d. ges. Physiologie....	6	5731	102.00	17.00	1.77
18	Biochemische Zeitschrift	14	6940	98.00	7.00	1.41
19	Biologisches Zentralblatt	1	780	10.00	10.00	1.28
20	Brun's Beiträge	3	2014	40.70	13.56	2.02
21	Chemisches Zentralblatt	1	9986	50.00	50.00	0.50
22	Dermatol. Wochenschrift	2	2003	17.75	8.87	0.88
23	Dt. Gesellsch. f. Inn. Med., Ver. 1	1	653	8.64	8.64	1.32
24	Deut. Med. Wochenschrift	1	2228	9.90	9.90	0.44
25	Dt. Monatsschrft. f. Zahnheilk. 1	1	1638	14.00	14.00	0.85
26	Dt. Ztschrft. f. Chirurgie	8	3608	62.88	7.83	1.74
27	Dt. Arch. f. Klinische Medizin.. 4	4	1520	30.00	7.50	1.97
28	Endokrinologie	2	952	18.00	9.00	1.89
29	Ergebnisse d. allg. Pathologie....	1	833	30.24	30.24	3.63
30	Ergeb. d. Anatom. & Ent., gesch. 1	1	660	29.00	29.00	4.39
31	Ergebnisse d. Biologie	1	764	18.91	18.91	2.47
32	Ergebnisse d. ges. Medizin.....	1	632	8.40	8.40	1.33
33	Ergebnisse d. Hygiene	1	758	20.64	20.64	2.72

Item	Title	Number of vols.	Total of pages	Cost per year	Cost per vol.	Cost per page Cents
34	Ergebnisse d. Inneren Medizin....	1	769	19.15	19.15	2.49
35	Ergebnisse d. Physiologie	1	945	25.07	25.07	2.65
36	Fermentforschung	1	585	15.00	15.00	2.56
37	Folia Haematologica	3	1614	45.00	15.00	2.78
38	Frankfurt. Ztschrft. f. Pathol...	2	1052	35.00	17.50	3.32
39	Hoppe Seyler's Ztschrft.	8	2208	30.00	3.75	1.35
40	Immunität, Allergie etc.	1	367	5.00	5.00	1.36
41	Jahrbuch f. Kinderheilkunde ...	5	1956	22.50	4.50	1.15
42	Journal f. prakt. Chemie	5	1916	18.75	3.75	0.97
43	Journal f. Psychologie & Neurol.	2	962	60.00	30.00	3.11
44	Klinische Wochenschrift	1	2456	11.50	11.50	0.46
45	Kolloid Zeitschrift	4	1536	20.00	5.00	1.30
	Brought forward	136	88482	1620.05		
46	Kyklos	1	463	7.26	7.26	1.56
47	Medizinische Klinik	1	1934	10.35	10.35	0.53
48	Mikrochemie	1	384	10.00	10.00	2.60
49	Mitteil. a. d. Grenz. d. Medizin	1	670	12.00	12.00	1.79
50	Mitteil. z. Geschichte d. Medizin	1	322	8.00	8.00	2.48
51	Monatshefte f. Chemie	3	1463	22.70	7.56	1.55
52	Monatschrft. f. Geburtsh.&Gyn.	3	1498	18.00	6.00	1.20
53	Münchener Med. Wochenschrift	1	2230	9.60	9.60	0.43
54	Naturwissenschaften	1	1133	10.60	10.60	0.93
55	Pflügers Archiv	3	2452	53.35	17.75	2.17
56	Skandinavisches Archiv f. Phys.	3	945	15.00	5.00	1.58
57	Strahlentherapie	5	3897	70.23	14.04	1.80
58	Studien z. Geschichte d. Medizin	1	77	2.88	2.88	3.74
59	Sudhoff's Archiv	1	393	6.25	6.25	1.58
60	Virchow's Archiv	4	3387	111.98	27.99	3.30
61	Wiener Klinische Wochenschrift	1	1620	7.95	7.95	0.49
62	Ztschrft f. angew. Chemie	1	1178	12.00	12.00	1.01
63	Ztschrft. f. Biologie	1	632	13.76	13.76	2.17
64	Ztschrft. f. d. ges. Exp. Med....	6	4883	173.30	28.88	3.54
65	Ztschrft. f. d. ges Neurologie...	8	6541	145.00	18.12	2.21
66	Ztschrft. f. Geburtsh. & Gyn.	2	1112	34.60	17.30	3.11
67	Ztschrft. f. Hygiene etc.	2	1554	20.00	10.00	1.28
68	Ztschrft. f. Immunitätsforschg.	4	2158	32.00	8.00	1.48
69	Ztschrft. f. Instrumentenkunde	1	722	14.00	14.00	1.94
70	Ztschrft. f. Kinderheilkunde ...	2	1563	37.60	18.80	2.40
71	Ztschrft. f. Klinische Medizin...	3	2292	74.55	24.85	3.25
72	Ztschrft. f. Konstitutionslehre...	1	794	34.40	34.40	4.33
73	Ztschrft. f. Krebsforschung ...	3	2404	85.25	28.41	3.54
74	Ztschrft. f. Morphologie etc....	1	498	19.35	19.35	3.88
75	Ztschrft. f. Parasitenkunde.....	1	825	34.25	34.25	3.40

Item	Title	Number of vols.	Total of pages	Cost per year	Cost per vol.	Cost per pages Cents
76	Ztschrft. f. Phys. Chemie "A"	7	3347	50.40	7.20	1.50
77	Ztschrft. f. Phys. Chemie "B"	5	2380	36.00	7.20	1.50
78	Ztschrft. f. Psych.&Physiol. etc.	1	334	5.50	5.50	1.64
79	Ztschrft. f. Tuberkulose	4	1832	28.00	7.00	1.52
80	Ztschrft. f. wissenschaftl. Mikr.	1	531	7.50	7.50	1.41
81	Ztschrft. f. Zellforschung etc...	3	2436	123.66	41.22	5.07
82	Zentralbl. f. allg. Pathologie	3	1875	24.00	8.00	1.27
83	Ztrlblatt f. Bakteriol., Originale	4	2060	32.00	8.00	1.55
84	Ztrlblatt f. Bakteriol., Referate	4	2503	32.00	8.00	1.27
85	Ztrlblatt f. Chirurgie	1	3359	16.50	16.50	0.49
86	Ztrlblatt f. Gynäkologie	1	3337	16.50	16.50	0.49
87	Ztrlbl. f. Haut-& Geschlechtskr.	4	3806	68.00	17.00	1.78
88	Ztrlorgan f. d. ges. Chirurgie	4	3803	68.00	17.00	1.78

245 170109 3234.32

E. Miscellaneous Journals.

1	Acta Dermato-Venereologica ..	1	558	\$ 7.00	\$ 7.00	1.25
2	Acta Paediatrica	1	951	5.88	5.88	0.61
3	Acta Obstetrica et Gynecol.	2	1052	12.00	6.00	1.14
4	Arch. Italiennes de Biologie	3	584	28.89	9.63	4.94
5	Arch. Néerland. d. Physiologie	1	584	6.33	6.33	1.08
6	Archivio di Fisiologia	1	599	9.35	9.35	1.56
7	Archivio di Scienze Biologiche..	2	1110	11.00	5.50	0.99
8	Folia Anatomica Japonica	1	466	5.75	5.75	1.23
9	Australian Jl. of Exp. Biology..	1	228	5.50	5.50	2.41
10	Chem. Society of Japan, Bull.....	1	374	2.35	2.35	0.62
11	Coll. of Chechoslovak Chem. etc.	1	667	5.00	5.00	0.75
12	Gazzetta Chimica Italiana	1	1011	11.00	11.00	1.08
13	Helvetica Chimica Acta	1	1467	6.80	6.80	0.46
14	Janus	1	368	5.46	5.46	1.48
15	Journal of Biochemistry	2	1003	12.00	6.00	1.19
16	Pathologica	1	516	6.00	6.00	1.16
17	Svensk Tandläkare Tidskrift.....	1	444	6.30	6.30	1.41
18	Sveriges Tandl. Förbund Tiding	1	402	6.30	6.30	1.56

23 12384 152.91

Grand Totals:

	Items	Number of vols.	Total of pages	Cost per year
American	73	114	99.450	\$577.18
British	35	41	36.346	409.40
French	31	41	39.231	192.25
German	88	245	170.109	3,234.32
Miscellaneous	18	23	12.384	152.91
	245	464	357.520	\$4,566.06

The foregoing totals, we believe, are startling enough to deserve a few comments. According to the figures, we have spent \$577.18 on American, and \$3,234.32 on German periodicals. In other words, the German journals cost us five times more than the American, eight times more than the British, and sixteen times more than the French publications. Our German percentages in the following tables are: 70% for journal appropriations, 36% for the number of titles purchased, 53% for the number of volumes received, and 48% for the total number of pages printed in these volumes. These figures are proof positive that we are paying our German colleagues a very high tribute for their industry in disseminating scientific knowledge; but does it follow that we must continue to spend such extravagant sums for information that could be condensed into less expensive volumes? Have librarians examined their records on the use of such material and compared them with those on American and British medical literature? It may be that we have just drifted in this respect, afraid to permit a break in our files, and have meekly accepted the belief, fostered by the Germans, that we cannot run our libraries without a full array of their literature. The time has come for us to reconsider the matter, discuss the problem, and take some definite action to relieve our budgets, save binding costs, and unburden our shelves of a great mass of unnecessary material. This is a good time to make cancellations while the depression forces us to economize, and in doing so we may find that many journals will not be missed by our readers.

The subscription cost per title in our summary "A" brings out this point even more glaringly, because the per-page costs in cents and fractions of cents are rather atomic to the eye and mind. Their very minuteness might even become seductive and make an involuntary spendthrift of an otherwise careful librarian. But yearly expenditures in dollars for single subscriptions are rarely seductive as the following items show:

	American	British	German
Journals costing \$ 20.00 to 49.99	4	3	29
" " \$ 50.00 to 99.99	0	0	16
" " \$100.00 and more	0	0	6.

To illustrate another point we refer to a study on the cost of journals taken by the medical library of the University of Rochester which Mr. Gilchrist made in 1925. We are giving below both his figures and ours to show the upward trend in prices and output during recent years:

Year	Titles	Volumes	Pages per vol.	Total cost	Cost per vol.	Page cost in cents
Rochester1925	104	238	629	\$2,626.66	\$11.01	c 1.73
Columbia1930	88	245	697	\$3,234.32	\$13.13	c 1.88

It would be interesting, indeed, to learn the comparative expenditures of other medical libraries in this respect, and to know how many German serial publications have recently been cancelled or purchased. Such information would be very instructive and would help to clear up a difficult situation.

Percentage of cost

	Cost	% Of Total
* American	\$ 577.18	12.7
British	409.40	9.0
French	192.25	4.2
German	3,234.32	70.7
Miscellaneous	152.91	3.4
	<hr/>	<hr/>
	\$4,566.06	100.0

*To this amount should be added \$360.75 representing valuable American gifts. This brings the total value of American material received by the library up to \$937.93, though only the above amount was spent.

Percentage of Items:

	Number of Items	% of Total
American	73	29.8
British	35	14.3
French	31	12.7
German	88	35.9
Miscellaneous	18	7.3
	<hr/>	<hr/>
	245	100.0

Percentage of volumes:

	Number of vols.	% of Total
American	114	24.6
British	41	8.9
French	41	8.9
German	245	52.7
Miscellaneous	23	4.9
	<hr/>	<hr/>
	464	100.0

Percentage of pages:

	Number of pages	% of Total
American	99,450	27.8
British	36,346	10.2
French	39,231	10.9
German	170,109	47.6
Miscellaneous	12,384	3.5
	<hr/>	<hr/>
	357,520	100.00

SUMMARY "A"

Cost	General		American		British		French		German		Miscel.	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total of items	245		73		35		31		88		18	
Item costing per year:												
\$5.00 and less	46	19.2	28	38.3			13	41.9	3	4.5	2	11.1
\$5.01 to 9.99	76	31.0	26	35.6	11	31.4	16	51.9	12	13.6	11	6.17
\$10.00 to 19.99	64	26.1	15	20.5	21	60.0	2	6.2	22	25.0	4	22.2
\$20.00 to 49.99	37	14.7	4	5.6	3	8.6			29	31.8	1	5.0
\$50.00 to 99.99	16	6.5							16	18.2		
Over \$100.00	6	2.5							6	6.9		
Items costing per volume:												
\$5.00 and less	77	31.9	47	64.4			19	61.3	9	11.4	2	11.1
\$5.01 to 9.99	92	37.6	21	28.8	15	42.9	12	38.7	29	33.0	15	83.3
\$10.00 to 19.99	59	24.1	5	6.8	19	54.3			34	38.6	1	5.6
Over \$20.00	17	6.4			1	2.9			16	17.0		
Items costing per page:												
1 cent and less	111	45.7	54	74.0	12	34.3	26	83.9	14	17.0	5	27.8
Cents 1.0 to 1.9	87	35.5	17	24.7	15	42.9	5	16.2	39	44.3	11	61.2
Cents 2.0 to 2.9	28	11.4		1.3	7	20.0			19	21.6	1	5.5
Over 3 cents	19	7.4			1	2.8			17	18.1	1	5.5

S U M M A R Y "B"

Per annum:	General	American	British	French	German	Miscell.
Items received	245	73	35	31	88	18
Volumes received	464	114	41	41	245	23
Pages received	357,520	99,450	36,346	39,231	170,109	12,384
Cost of items per year	\$4566.06	\$577.18	\$409.40	\$192.25	\$3234.32	\$152.91
Average vols. p. item.....	1.8	1.6	1.2	1.3	2.8	1.3
Average pages p. volume....	772	872	886	957	697	538
Average pages p. item.....	1459	1362	1039	1266	1935	727
Most expensive item	\$ 173.30	\$ 30.00	\$ 28.75	\$ 14.85	\$173.30	\$ 28.89
Least expensive item	\$ 0.90	\$ 0.90	\$ 5.63	\$ 1.50	\$ 2.88	\$ 2.35
Average cost per item	\$ 18.51	\$ 7.91	\$ 11.70	\$ 6.20	\$ 36.41	\$ 8.49
Most expensive volume	\$ 50.00	\$ 16.00	\$ 28.75	\$ 9.45	\$ 50.00	\$ 11.00
Least expensive volume	\$ 0.90	\$ 0.90	\$ 5.25	\$ 1.50	\$ 2.88	\$ 2.35
Average cost per volume \$	9.79	\$ 5.06	\$ 9.99	\$ 4.69	\$ 13.13	\$ 6.65
Most expensive page	5.07	c 2.06	c 3.42	c 1.70	c 5.07	c 4.94
Least expensive page	0.07	c 0.07	c 0.51	c 0.20	c 0.44	c 0.46
Average cost per page.....c	1.27	c 0.58	c 1.13	c 0.49	c 1.88	c 1.23

A list of the most important gifts received by the library of the College of Physicians and Surgeons has been added to avoid creating a false impression concerning the interrelation of the size of the library, the total number of items received, the total cost of the periodicals, and the comparative value of the several national groups. (*) Our library does receive a large number of free journals from publishers in this country, but most of them come to us through the medium of exchange. We cannot help mentioning the fact that only four German journals (all on dentistry) were willing to establish exchange relations with us, although requests were sent to sixty-eight publications in Germany.

An analysis of the proportionate changes wrought by the value of the gifts has been attached to the study, but it was not deemed necessary to follow up these changes into the per-page cost. We concluded that more tables would be too much of a strain on the most patient reader, and so decided to confine ourselves to the very important relations. Duplicate subscriptions were also purposely omitted in the earlier pages of the survey. They were inserted into the final tables to give a complete picture of our accessions and expenditures. The 527 journals received cover the fields both of medicine and dentistry, but do not include any government publications nor transactions of societies. The latter are always regarded as serials, but have been omitted to confine our study strictly to the subject of journals.

(*) Lack of space forbade the printing of this list.

Gift analysis tables:

	Number of	% of Total	Value	% of Total Value
American	88	65.2	\$360.75	60.8
British	20	14.8	72.53	12.2
French	8	5.9	13.21	2.2
German	6	5.2	87.00	15.7
Miscellaneous	12	8.9	53.75	9.1
	<u>134</u>	<u>100.0%</u>	<u>\$587.24</u>	<u>100.0%</u>

The average gift was worth \$4.35;
 The average American gift was worth \$4.10;
 The average British gift was worth \$3.63;
 The average French gift was worth \$1.65;
 The average German gift was worth \$12.33;
 The average Miscellaneous gift was worth \$4.48.
 Gifts without monetary value were as follows:

American items	118
British items	2
French items	5
German items	3
Miscellaneous items	13

141

Gifts with monetary value 134

Total gifts 275

Of the total gifts received:

206 that is 75%	were American
22 " " 7%	were British
13 " " 5%	were French
9 " " 4%	were German
25 " " 9%	were Miscellaneous

275 100.0%

The total accessions were as follows:

Subscriptions	245	worth	\$4,566.06
Duplicates	7	"	\$ 203.50
Gifts	134	"	\$ 587.24
Gifts	141	no value	
Total	<u>527</u>		<u>\$5,356.80</u>

Of the duplicate subscriptions:

4 were American and amounted to	\$ 53.00
1 was British and amounted to.....	\$ 22.50
2 were German and amounted to....	\$128.00
	<hr/>
	\$203.50

Of all the items received:

283 that is	53.6%	were American
58 " "	11.0%	were British
44 " "	8.3%	were French
99 " "	18.9%	were German
43 " "	8.2%	were Miscellaneous
<hr/>	<hr/>	
527	100.0%	

In concluding our study we would like to emphasize certain suggestions and ask the German publishers to give them their serious consideration.

1. German journals should have a fixed annual subscription price.
2. The number of volumes to appear during each year under each title should be announced in advance.
3. No supplements of any kind should be issued unless they are incorporated in the main body of a volume; they should be listed in the index or table of contents, and should be issued without extra charges.
4. The total yearly output should be reduced at least thirty percent through briefer articles and editorial selection. This can easily be done without any loss of important scientific data.
5. As a matter of courtesy to librarians, there should be briefer titles, and only independent journals. All subdivisions under Abteilungen A, B, C or 1, 2, 3 etc. should be abolished. This type of arrangement is a constant source of annoyance to both librarians and readers because of the confusion it creates.
6. Another unfortunate custom is the use of proper names before the titles of journals. Such periodicals are frequently listed under widely differing headings, for example: (1) Wilhelm Roux's Archiv; (2) Roux's Archiv; (3) Archiv fur Entwicklungsmechanik der Organismen; (4) Zeitschrift fur wissenschaftliche Biologie, Abeteilung D. The duplications and cross-references necessitated by these variations are inconvenient and expensive. The custom should therefore be abolished.

We do not mean to imply that publications from other countries, especially our own, are free from imperfections and beyond criticism. There are many improvements which could be made in American journals, but the lower cost and wider distribution of domestic periodicals make them less of a financial problem, so that the matter does not fall within the scope of our study. Our recommendations are submitted in a spirit of cooperation to

promote more cordial relations between publishers and medical librarians, and to suggest to the publishers ways and means of alleviating the anxiety of librarians on the disturbing subject of renewing journal subscriptions. Due to the stress of economic conditions cancellations will become inevitable, unless the German publishers make a substantial reduction in subscription prices and curtail the volume of production.