THE PERIODICALS USEFUL IN THE DENTAL LIBRARY*

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I THINK Mark Twain would have said if he were in my place: "Ladies and gentlemen, I shall now talk to you on dental library affairs, and I assure you that I am well qualified for it, for I am neither a dentist nor a librarian by profession." However, I have been connected for eighteen years with a dental college bearing a medical name, but having no school of medicine. Here I became acquainted with many problems of dentistry, and, being a lover of books ever since I could read, I examined one day about fifteen years ago the accumulation of books called the library. They were mostly medical books sent as review copies to the *Pacific Medical Gazette,* a few medical magazines, a few dental books, and not a single dental periodical. At that time the college discontinued its medical course and specialized entirely in teaching dentistry.

It was a part of my work to build up a dental library with the least amount of expenditure. A call to the alumni brought us the common dental periodicals and there are now many duplicates which I would like to dispose of. Three years ago we joined your association and with the gracious help of the altruistic Library Exchange we have been able to round out our periodical literature. Within this short time we have received 48 shipments from 41 libraries. Our budget is small, and most of it goes into binding periodicals. Nearly all the dental periodicals, about 140 of them, are received through exchange with our monthly periodical, *Contact Point,* while the medical and scientific periodicals are received as gifts from various faculty members.

I mention these facts in order to emphasize the fact that the library had to be self-sufficient; that is, we could not send our students to a general library or to department libraries for specific periodicals. Hence the question: "what are the essential periodicals for a dental library?" To answer this question fully would involve a definition of the field of dentistry, its development and present status among the arts and sciences. Perhaps the best insight into the present condition of dentistry is contained in the report of the Curriculum Survey Committee of the American Association of Dental Schools entitled, "A course of study in dentistry, 1935." This survey was made possible by a grant from the Carnegie Corporation of New York and gives an excellent picture of the many ramifications which dental science has built up in modern times. Aside from the scientific and medical fundamentals—biochemistry, physiology, anatomy, bacteriology, pathology, pharmacology, etc.—the dentist should also be conversant with the current literature of such technical fields as metallurgy, ceramics, rubber and plastic materials. This naturally introduces a number of technical periodicals not found in medical libraries. The ever increasing importance of these border-

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fields of dentistry is shown by the fact that non-dental periodicals are being mentioned more and more in dental literature. Even bulletins of agricultural stations are of value; thus for instance the first announcement that fluorine in the drinking water is the cause of mottled enamel, an endemic disease of the teeth of children, is found in the bulletin of an Agricultural Experiment Station.

Together with the physicians, the dentist is also interested in radiography, anesthetics, public health, and of recent years in the social and economic relations of society. This broadening attitude in dentistry will undoubtedly bring physician and dentist closer together. I believe that the dentist may become of great aid to the physician, for there are some bone diseases which make their first appearance in a changed structure of the sockets and roots of teeth. Here the progressive dentist can diagnose incipient cases which, unrecognized, would progress until the physician received them, usually too late.

TABLE II

Quoted Periodicals

This table shows the number of times a periodical is quoted, and is arranged in order of frequency of quotations from dental periodicals. Thus in the period ending 1933, the *J.A.D.A.*, having 20 volumes, is quoted 2937 times (or 13.41 per cent. of the total quotations), while the *Dental Cosmos* is quoted 4173 times to any one of its 75 volumes (19 per cent. of the total). In the period from 1934–35 the position is reversed, and the *J.A.D.A.* is quoted 17.7 per cent., while the *Cosmos* has 13.4 per cent. To obtain a relative value of the increase or decrease in quotations, the factor q/q' is calculated: the smaller this number (e.g. 2.5 for *J. Dent. Research*), the more frequently is the periodical mentioned in the last two-year period as compared with the previous period.

Name	Period Ending 1933			1934–35		q/q'	Quotations per Volume $(q+q')/(v+2)$
	No. of Vols. v	No. of Quot. q	Per Cent.	q'	Per Cent.		
1. J.A.D.A.	20	2937	13.41	767	17.7	3.8	168.4
2. D. Cosmos	75	4173	19.0	582	13.4	7.1	61.8
3. J. D. Research	13	569	2.59	225	5.2	2.5	53.0
4. D. Items Int.	55	660	3.01	77	1.8	8.5	12.8
5. Brit. D. J.	15	305	1.40	59	1.3	5.2	21.4
6. Int. J. Orthod.	19	494	2.25	50	1.2	9.9	26.4
7. Oral Hygiene	24	377	1.72	46	1.0	8.0	16.3
8. D. Digest	40	213	0.97	34	0.8	6.2	5.9
9. Pac. D. Gaz.	41	175	0.80	20	0.5	8.7	4.5
10. D. Record	52	152	0.65	20	0.5	7.6	3.2
11. D. Outlook	20	82	0.37	17	0.4	4.8	4.5
12. D. Summary	44	241	1.10	12	0.3	20.8	5.5
Foreign							
1. Zahnärzt. Rundschau		88	0.34	72	1.7	1.2	
2. D. Mtschr. Zahnh.		89	0.35	46	1.0	1.9	
3. Ztschr. f. Stomatol.		203	0.9	34	0.8	6.0	
4. Rev. Stomatologie		99	0.44	17	0.4	5.8	
5. Vrtlj. f. Zahnhlknd.		71	0.32	12	0.3	5.9	
6. Fortschr. Zahnhlknd.		54	0.25	5	0.1	10.8	
7. D. Mediz. Wchnschr.		72	0.32	4	0.1	18.0	
8. Compt. Rend. Soc. Biol.		56	0.25	4	0.1	14.0	

TABLE II.—*Continued*

Name	Period Ending 1933			1934–35		q/q'	Quotations per Volume $(q+q')/(v+2)$
	No. of Vols. v	No. of Quot. q	Per Cent.	q'	Per Cent.		
Medical and Scientific							
1. J.A.M.A.		1461	6.5	182	4.2	8.0	
2. Am. J. Dis. Children		128	0.57	59	1.4	2.1	
3. Lancet		332	1.5	54	1.3	6.1	
4. J. Biol. Chem.		205	0.91	51	1.3	4.0	
5. Brit. Med. J.		184	0.82	23	0.5	8.0	
6. Arch. Intern. Med.		154	0.68	22	0.5	7.0	
7. J. Infect. Dis.		201	0.91	21	0.5	9.5	
8. Surg. Gynec. Obstr.		168	0.75	19	0.4	8.8	
9. Proc. Soc. Exp. Biol. M.		126	0.56	19	0.4	6.6	
10. Am. J. Physiol.		123	0.54	19	0.4	6.4	
11. J. Nutrition		15	0.07	14	0.3	1.0	
12. J. Exp. Med.		136	0.6	14	0.3	9.0	
13. Med. J. & Rec.		125	0.56	13	0.3	9.6	
14. Cur. Res. Anesth. Analg.		188	0.83	12	0.3	15.0	
15. J. Pharm. & Exp. Ther.		111	0.5	10	0.2	11.1	
16. N. Y. Med. J.		190	0.85	9	0.2	21.0	
17. Am. J. Med. Sci.		107	0.49	9	0.2	12.0	
18. Brit. J. Exp. Path.		39	0.15	8	0.2	4.8	
19. Biochem. J.		157	0.69	8	0.2	19.0	
20. Am. Med.		27	0.13	7	0.2	3.8	
21. J. Lab. & Clin. Med.		103	0.47	7	0.2	15.8	
22. Proc. Roy. Soc. Med.		126	0.56	7	0.2	18.0	
23. Brit. J. Surg.		30	0.14	7	0.2	4.3	
24. J. Am. Chem. Soc.		63	0.29	6	0.15	10.5	
25. J. Bacteriol.		41	0.22	6	0.15	6.7	
26. Annals of Surg.		108	0.49	6	0.15	17.0	
27. J. Heredity		1	0.005	6	0.15	0.16	
28. Am. Mus. Nat. Hist.		1	0.005	5	0.15	0.2	
29. J. Bone & Jnt. Surg.		7	0.035	5	0.15	1.4	
30. Laryngoscope		56	0.25	5	0.15	11.0	
Total		22,534		4398			

But the problem of what is needed in a dental library remained more or less an opinion until the depression came and with it FERA and WPA. Under both systems the library was suddenly provided with more student help, and I had to find some work for them. Among the several library projects, such as cataloging reprints, indexing periodicals, and preparing bibliographies, I had one group of students engaged in a statistical survey of dental periodicals. This work had as its aim to determine: *first,* which periodicals contain the most references per volume—hence, contain presumably the most carefully prepared papers; and *second,* which periodicals are most frequently quoted—that is, are most useful in a dental library.

The mechanical part of the work consisted in going through the volumes page by page and recording on index cards every bibliographic reference, giving volume and page of the referring periodicals. Table I,* " Referring periodicals," shows the names and number of volumes examined, also the

* Not reproduced here. The Table may be consulted on application to the Secretary.—ED.

number of references counted and the number of different periodicals mentioned. The table is arranged to show progress or retrogression in the period up to 1933 and the two year period 1934–5. The periodicals are listed in order of the number of references per volume for the period ending 1933. In nearly all cases an improvement can be seen, and, altogether, 22,575 references were counted and classified. These mention 1,633 different periodicals.

The second table, "Quoted periodicals," gives a list of the dental, scientific, and medical periodicals which are quoted most frequently by the referring periodicals listed in the first table. This list is of interest in showing, by the improved quality of the quotations, the increasing influence of scientific methods. Thus, twenty years ago the dentist, writing perhaps for the first time, was proud to quote a magazine like *Oral Hygiene,* one of the throw-away periodicals, whereas today he is more likely to quote the *Journal of Dental Research* or a reputable medical or scientific periodical. A careful analysis of these data impresses one with the qualitative improvement in dental literature; for foreign as well as medical and scientific periodicals are quoted today more frequently than before. It is conservative to state that there has been a healthy and steady increase in the use of bibliographic sources by the dentist, which in turn indicates an increased carefulness in the preparation of papers and a departure from the early dental custom of rushing into print without even examining the literature.

The variety of journals quoted is enormous: among the 1,633 periodicals we find the *Astrophysical Journal, British Journal of Photography, Journal of Home Economics, Good Housekeeping, Printers Ink, Daily Postal Bulletin, U. S. News,* Am. Institute of Metals, *Survey Graphic,* Academy of Political and Social Sciences, *Bureau of Standards Journal*—to mention but a few. Among the German periodicals we find a better quality throughout; probably the dentist who reads German is more discriminating. Thus there are references to the *Archiv für mikroskopische Anatomie, Biochemische Zeitschrift, Kolloid Zeitschrift, Archiv für Protistenkunde, Zeitschrift für Zellen- und Gewebelehre, Zeitschrift für wissenschaftliche Photographie, Anthropologischer Anzeiger, Archiv für experimentelle Zellforschung,* and naturally the other leading medical and dental periodicals.

Very early in this study I was impressed with the fact that some medical and scientific periodicals are quoted rather frequently. Thus the second periodical on the list is the *American Journal of Diseases of Children.* We had not a single copy of it, and so I sent a call for help to Miss Ophüls of the Lane Medical Library. I received a large number of duplicates from her and the complete volumes were bound. Through the Library Exchange I sent the "wants" for missing numbers. One day three large packages came from the New York Academy of Medicine and in them were all the missing volumes bound in red cloth. Both bindings and lettering match well and one must look close to see the difference—certainly a lucky incident for our library. May I take this opportunity of thanking you again for these gifts, and especially the administrative officers of the Association who handle the library Exchange so efficiently and helpfully?