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REPORT OF THE ACTING MANAGING DIRECTOR OF THE RESEARCH INSTITUTE TO THE NATIONAL DENTAL ASSOCIATION.

July 22, 1916.

THE Research Institute of the National Dental Association is the name of the incorporated Scientific Foundation and Research Commission, in accordance with Chapter 10, Section 2, of the Constitution and By-Laws of the National Dental Association, Section 1 of which created the Scientific Foundation and Research Commission and Section 2 instructed them as to their duties, in part as follows:

"To raise funds; to disseminate scientific knowledge, to establish and encourage research; to organize and incorporate a corporation to be known as the National Dental Research Foundation and Institute, or such other name as the Commission shall select, which corporation shall receive, invest and disburse all moneys provided by the Commission and by themselves. They shall organize this corporation in accordance with the laws and requirements controlling such institutions, except that not less than one-third of the trustees of the said corporation shall be provided by the National Dental Association (6 out of 9 are actually from the National Dental Association). This corporation shall seek bequests, endowments, fellowships, and such other contributions as shall perfect the purpose and plan of the National Association. * * * * *

The Research Commission has been working diligently and continually, since its creation July, 1913, for the fulfillment of these duties placed upon it and has reported, in full detail at each an-

nual meeting, to the Trustees and House of Delegates, all plans for endorsement and improvement. These have always received unanimous and enthusiastic endorsement and assurance of support. At the last annual meeting held at San Francisco on September 5, 1915, the report stated in detail that the charter had been taken under the laws of Ohio on June 28th previously. The full text of the charter was presented and full explanation why efforts to secure a charter in some other states had failed and why Ohio's law was deemed best, and that the Research Commission had unanimously instructed its Executive Board to proceed to Cleveland on September 25th to complete the organization. This was done precisely as reported and as had been worked out in detail by the Research Commission. A part of the equipment that had been recognized from the first as essential for the development of an efficient department was a principal place for doing business, as required by law, including the administrative and secretarial departments. Plans for a building had been drawn at the request of the Commission and had been received and approved at the meeting of the Commission in Rochester, which building was to cost approximately \$68,000 without the land. At the time of the meeting of the Commission and National Dental Association at San Francisco, no definite plans relative to a property were in mind, but a few days prior to the special meeting for the organiza-

tion of the Research Institute which occurred on September 25, 1915, a property was offered for sale in Cleveland of such unusual adaptability for the work, and at a price so reasonable, that the Trustees decided, tho suddenly, since quick action was imperative, to purchase the property, for it had been continually recognized that an equity in personal property and a principal place for doing business were essential for the securing of endowments, as well as for the carrying on of the work. Independent appraisers valued the land alone at \$45,000, and the buildings, a Pompeian Tapestry brick residence and barn, cost \$75,000 only sixteen years ago. This action has proved to be a most fortunate and helpful item for the development of the work, for the equities of the Research Department have increased more since that date, September 25th than in the entire three years preceding, and with the exception of an exceedingly small per cent of the dental profession, this action has met with most enthusiastic and complete approval, as evidenced by the fact that in this short time they have provided \$30,204.00 of the \$50,000 required for purchasing the property, and many who had made subscriptions to the support of the researches have not only made subscriptions to the Building Fund but have increased their subscriptions to the Research Fund, because of the acquisition of the buildings.

Notwithstanding this most enthusiastic and certain approval on the part of the profession, as evidenced by the fact that approximately thirty different states have taken part in the contributing of the \$30,000 already provided, it was unfortunate that the Trustees did not have the knowledge of this particular building to report to the profession at the California meeting. They did, however, before taking final action, submit the matter in a detailed letter to the full membership of the Research Commission for their approval or disapproval, and did not receive one

single objection and all replies were enthusiastic approvals. They also regret that, at the time the matter was submitted to the full membership of the Commission, it was not also submitted to the Trustees of the National Dental Association for their counsel as well, not because this was necessary, since full power had been given, but to secure the largest possible counsel, which the Commission has always endeavored to do.

While the headquarters for the research work are located geographically within a few counties of the center of population of the United States, the location is not a matter of great importance, so far as the work is concerned, except for convenience and for efficiency in securing endowments. The property purchased has about thirty splendid rooms, which are all well lighted and are proving to be about as well adapted to the work as they could have been had the building been built especially for the work. During the three previous years the National work has been housed in quarters provided gratuitously by the Chairman, which space it had finally entirely overflowed.

The activities of the Research Department for the past year have included the following various fields:

The conducting of researches under grants in eight different cities.

The conducting of researches in the Research Institute.

The securing of cash by collections from pledges, and new pledges.

The raising of funds for the purchase of the buildings and property.

The equipment of the building for administrative and research purposes.

The securing of endowments for the maintenance of the work.

The publicity of research reports.

A campaign of general education by lectures and correspondence.

The organization of research and study clubs.

The supplying, at cost, of tungsten, molybdenum and palladium, and their combinations, and a flux for tungsten, to the members of the dental profession.

Development of the details of the organization of the corporation.

We will discuss these in the above order and after reviewing the work of the past year as it relates to each, we will make our recommendations regarding each for the future.

THE CONDUCTING OF RESEARCHES UNDER GRANTS IN EIGHT DIFFERENT CITIES.

All the researches previously organized and established have been continued thruout the past year, and three new ones were added. These have been as follows:

"Studies on the Relation of Mouth Infections to Systemic Infections," under the direction of Thomas B. Hartzell, M. D., D. D. S., assisted by Arthur T. Henrici, M. D., Donald McCarthy, D. D. S., and William Grey, D. D. S., in the University of Minnesota, Minneapolis.

"Studies on the Peridental Membrane," by Frederick B. Noyes, B. A., D. D. S., in the University of Illinois, Chicago, Illinois.

"Studies on the Saliva and on Dental Caries," under the direction of Russell W. Bunting, D. D. Sc., assisted by Miss Florence Wixon, in the University of Michigan, Ann Arbor, Mich.

"Studies on Dental Cements," under the direction of Marcus L. Ward, D. D. Sc., assisted by Ralph M. McCormick, M. S., in the University of Michigan, Ann Arbor, Mich.

"Studies on Salivary Deposits," by Percy R. Howe, A. B., D. D. S., in the Forsyth Dental Infirmary for Children, Boston, Mass.

"Studies on the Relation of the Glands of Internal Secretions to Dental Problems," by William J. Gies, M. D., Ph. D., in the Columbia University, New York City. This work is being done in co-op-

eration with the New York State Dental Society.

"Studies on Root Canal Fillings," by John R. Callahan, D. D. S., in the Cincinnati General Hospital, Cincinnati, O.

"Studies on Mottled Enamel and Brown Stain Deformities," by Frederick S. McKay, D. D. S., of Colorado Springs, Colo.

"Metallurgical Problems," under the direction of Frank A. Fahrenwald, E. M., M. S., Ph. D., in the Research Institute and Case School of Applied Science, Cleveland, O.

"Differentiations in Mouth Infections," by Weston A. Price, M. S., D. D. S., assisted by Le Rue P. Bensing, A. B., Cleveland, Ohio.

"Galvanic Medication, including Electric Ionization," by Weston A. Price, Cleveland, Ohio.

Many of these reports are being given more or less in detail at this meeting and we are sure you will be greatly profited by them. Some of them mark very distinct advances for the past year. With exception of our special recommendations under a different heading in the closing paragraph relating to the metallurgical researches, we would recommend that these researches be continued and, if possible, some additional ones be established.

THE CONDUCTING OF RESEARCHES IN THE RESEARCH INSTITUTE.

Owing to the very limited funds, the work in the Institute has been established very slowly this year and limited to metallurgical, physical and bacteriological studies. About \$4,000 worth of equipment has been donated to the Institute and the building and equipment will be in splendid readiness for the expected enlargement of the work as it will be established this Fall. In connection with the oral infection studies, a considerable number of patients have been cared for, furnished almost entirely by the Associated Charities of the City, consisting

largely of more or less seriously crippled patients with Arthritis Deformans, Acute Rheumatism, Chronic Digestive Disturbances, Neuritis, etc. Incidentally, many of these patients have been greatly benefited and the study of their cases will contribute to our total knowledge of these conditions. Several of these will be reported in detail in a special report on mouth infection studies.

THE SECURING OF CASH BY COLLECTIONS FROM PLEDGES, AND NEW PLEDGES.

A great deal of effort has been required this year to make collections and literally scores, if not hundreds, have written finally, assuring us that it was nothing but carelessness by procrastination. We started in last Fall with a budget of \$12,000, and cash on hand \$4,426.10. The cash receipts from August 3, 1915, to June 20, 1916, including the above item of cash on hand August 3, 1915, have been \$16,537.48. The disbursements for the current year's various activities have been—current year's budget appropriations for researches in eight different cities \$11,211.91; previous budget appropriations \$258.56; special budget appropriations \$2,044.14, making a total of \$13,514.71 and leaving cash on hand June 20, 1916, to begin the 1916-1917 fiscal year, of \$3,022.77. Correcting this up to July 22, 1916, we have \$5,485.44, of which \$748.48 has been expended to this date on the work of the new fiscal year and \$250.00 on a previous special appropriation for patents, which are being assigned to the free use of humanity. A complete financial report is herewith appended. New pledges have been secured during the past year for \$17,368.75. Our recommendations regarding this branch of the work are as follows:

The pledge system always has been intended to be, and always has been explained as being, simply a temporary procedure for the organizing and establishing of the work. Only after compe-

tent organization and establishment could endowments for permanency be secured. We are now at that point, having established the four requisites, which are universally recognized by experts, namely:

1. An organization competent and legally qualified to receive and trust funds.
2. A headquarters and principal place for doing business, as required by law.
3. To have demonstrated ability to fulfill the mission for which the endowments are asked.
4. An adequate moral and professional support from the dental profession, the laity, and the medical profession.

The only one of these lacking is the adequate support of the dental profession. This Research Department must be established above all else as being an indispensable and inseparable component part of the National Dental Association, which can only be done in fact, as well as in name, by having every member of the National Dental Association an indispensable and inseparable part of the Research Department. This, and all problems and questions relating to a separation of the two, will be forever settled and only so when membership in the National Dental Association is made contingent upon both moral and financial support of the Research Department. Please note—not an optional support but an unconditional support. The Research Department must in turn remain absolutely under the control of the National Dental Association, in which condition it is and apart from which it cannot exist. After a great deal of study of this matter, your Research Commission and Trustees of the Research Institute have decided that the simple and efficient method for accomplishing this is to have the membership in the National Dental Association contingent upon each member paying the interest on a certain sum of principal endowment,

which sum we recommend as \$20.00, the interest on which will be \$1.00 annually. This principal may or may not be paid in by the member, as he chooses, and when he does he shall cease to pay the \$1.00 interest, for the \$20.00 will be invested and only its interest used and he, therefore, becomes a perpetual member of the National Dental Association in the support of the research work. This plan was first announced less than four months ago, when the Trustees of the Research Institute decided that the time had arrived for starting the endowment fund, which they unanimously agreed to start with the dental profession. In this short period, we believe that one of the most remarkable and impressive incidents that has ever happened in the dental profession has occurred, in that about one-third of the entire membership of the National Dental Association has adopted this plan, which was possible because of their having their annual meeting during that period, and many other states have signified their desire to do so as soon as they can have a regular meeting. This plan will supersede the temporary pledge plan and, while it would have been convenient and fortunate if conditions could have been such that this action could have been delayed for a year, it is not possible to delay it because of the fact that the temporary five year pledges used for establishing and organizing the work begin terminating in large number next year, many subscribers having already paid up their entire pledge, and it would be fatal to the work to curtail its activities and retreat, for while there is nothing that succeeds like success, there is nothing that fails like apparent failure. The accompanying map illustrates, graphically by the states being marked black, that a large part of the entire country has already adopted this basis and, incidentally, we must call your attention to the fact that states that have acted favor-

ably are not the older and wealthier states where the profession is well established and where its members are receiving substantial fees. The amount of time, the income of which is requested, may represent from one-half to one hour out of the year in many of these newer and rougher states, while in the older states it would represent the income probably on an average of from ten to twenty minutes during a year of the average dentist. It is a very significant fact that in not one single instance where the Chairman has presented the work of the Institute and the plan for its permanent endowment, beginning with the profession, has a state or society failed to unanimously adopt the plan. Several states have taken this action, and we understand all have done it unanimously, on the strength of the facts of data submitted by correspondence and by presentation by other members of the Commission.

THE RAISING OF FUNDS FOR THE PURCHASE OF THE BUILDINGS AND PROPERTY.

Probably no problems entailed in the establishment of a comprehensive research department for a great healing profession has required so much study and familiarity with the facts sufficient to establish faith and confidence as has been necessary for this department of activities. A true test of faith is found in matters that involve financial risk. Since the Trustees of the Research Institute are individually liable, under the laws of Ohio, for its debts, it required some faith in the worthiness of the work and confidence in the dental profession and in humanity, to purchase a property at \$50,000, when less than fifteen hundred dollars was in sight. That this confidence was not misplaced by those who took the initial, financial risk, is shown by the fact that, as previously stated, over three-fifths of the entire amount required has already been pledg-

ed and nearly two-fifths paid in. The balance will be provided in the same spirit. Many states have not had an opportunity to take action, relative to making a contribution to the Building Fund. It is the policy of the Trustees of the Institute that, as states shall put into effect the one dollar dues plan, the persons within that state who have made five year pledges for the support of the research work, shall be given the privilege of doing one of three things with their pledge, either the first or second of which we recommend—namely that the immature and unpaid payments be transferred to the Building and Equipment Fund, or that it be continued as at present for the support of the Research Fund, or that it be terminated altogether. It is a hardship for some to continue these subscriptions and for such we recommend their termination as a matter of equity and justice. However, we believe there will be enough who can afford to do so and who will gladly transfer their pledge to the Building Fund, so that it can soon be closed as being provided for and the universal effort can then be concentrated on the last great task, namely, that of securing an ample endowment. The property that has been purchased as the headquarters is increasing in equity at the rate of about ten per cent a year, as is all the property in its vicinity, and since we do not have to pay taxes, being an eleemosynary institution, and, since the buildings are in such excellent repair, the National Dental Association will soon have a very valuable equity in realty, and it could, at this moment, receive more for its property than its purchase price. Its location is one of the best for land value increase in the city of Cleveland, it being one of the famous Euclid Avenue homes that are rapidly being sacrificed as residences because of the encroachment of business. Many of the states have already taken action in pro-

viding funds for the purchase of the building. These and their amounts are as follows:

July 25, 1915.

Cost of property.....	\$50,000.00
Amount secured to date, in cash and pledges.....	30,204.89
Balance to be raised.....	\$19,795.11
Colorado	\$ 705.00
Connecticut	100.00
Georgia	1,425.00
Illinois	705.00
Iowa	1,555.00
Kansas	660.00
Maryland	500.00
Massachusetts	110.00
Michigan	200.00
Kentucky	300.00
Minnesota	100.00
Missouri	677.50
New Jersey	105.00
New York	810.00
Nebraska	1,181.50
Ohio	16,177.89
Oklahoma	410.00
Pennsylvania	450.00
North Carolina	507.00
South Dakota	15.00
Southern California	500.00
Tennessee	75.00
Washington	100.00
West Virginia	271.00
Wyoming	15.00
Hawaii	50.00

\$27,704.89

Special Contribution from the
Assignor of the property.... \$ 2,500.00

Total \$30,204.89

THE EQUIPMENT OF THE BUILDING FOR ADMINISTRATIVE AND RESEARCH PURPOSES.

An inventory of the equipment and furnishings in the building shows \$6,131.00, and it is particularly gratifying to us that nearly \$4,000 of this has been donated without cost to the Trustees. The

Institute also owns equipment that has been purchased with the fund of the department and which is now in the hands of some of the directors of special research. The Trustees have been very careful that no gifts should be received to which were attached any strings, reservations or opportunities for capitalization. We believe it to be very important that this policy of safeguarding the best interests and reputation of the Institution be continued.

THE SECURING OF ENDOWMENTS FOR THE MAINTENANCE OF THE WORK.

One of the largest and most formidable problems connected with this department has been the education of the members of the dental profession, the majority of whom feel competent to have a judgment and make a decision instantly on almost any question that might come to their attention pertaining to research and its complicated requirements, and this even on problems that should take months of study. Few have even yet obtained the vision of what the Research Department of the National Dental Association should be and must be. Many have conceived of it as achieving its purpose in the temporary support, financially, of the effort being made to solve a few limited special problems. Were this the end and object, the enormous expenditure of effort and sacrifice would have been, in no sense, justified, while in view of the real object and opportunity, they have been abundantly justified. Next to the intrinsic merits of the problems confronting the dental profession and its opportunity to serve humanity comes the necessity for ample finances for carrying on this worthy work. No form of financial support is adequate that is temporary. Research workers cannot take up a life work without the question of permanency being established beyond the question of doubt. Only an endowment can be con-

sidered as a competent financial security. The Trustees of the Institute are setting their first stakes at one million dollars, the first part of which shall be the \$20.00 represented in each member of the National Dental Association, and on which he shall pay the \$1.00 interest until such time as he may choose to pay the principle, unless he ceases to be a member of the National Dental Association. The approximately 19,000 members constituting the present National Association will, accordingly, provide \$380,000 of the million dollar endowment, an annual income, at 5%, of \$19,000, which is a minimum amount competent to establish the work and to absolutely assure its permanency. This amount will be increased as rapidly as bequests and gifts can be secured, and will also be rapidly increased by the increase in the members of the National Dental Association. If the question is raised, which we hope it will be, as to whether or not the adoption of this plan may reduce the membership of the National Dental Association, we have important data that we wish the privilege of submitting, and which has a significant bearing upon it. We believe the ultimate, greatest efficiency and good to the dental profession will come by the dental profession having the largest possible credit for, and control of, this department and we would urge that, as gifts are accepted by the department, they shall always be free from extenuations that will take from the dental profession its much to be coveted prestige in its absolute control. We believe there will not be an embarrassment from this point, provided the National Dental Association shall once have actually established the work on a permanent and competent working basis. There is splendid encouragement that this department will receive assistance from outside its own sources, when it shall have fulfilled the above previously mentioned requisites. This, as has frequently

been stated, will be delayed and decreased by the existence of the war in Europe. While \$19,000 or \$20,000 will establish and guarantee the permanency of the work, the work cannot be adequately extended and enlarged, as the conditions so greatly demand at the present time, until the endowments shall approximate a million dollars, which will give an annual income of \$50,000. This, we believe, can soon be obtained, provided we can have just a little help from every member of the National Dental Association, and shall work as an absolute unit in carrying out adopted policies and plans. One person dragging his oar or back paddling can do more to throw the craft out of its course, or prevent it from making headway at all in the rapids and shoal waters thru which we are going, than can be overcome by hundreds, if not thousands, pulling in the right direction. The Trustees of the Research Institute have confidence of the securing of a large and ample endowment, provided only that we shall have the universal and united support of the members of the dental profession. The one million dollar mark is only the first placing of the goal and will not long be adequate to fulfill the duties and opportunities of the dental profession. In four months time practically one-tenth of the million dollar endowment has been secured by the adoption of the every member dollar plan. This we believe to be the most important question that is now before the National Dental Association, at this—the greatest meeting in its history.

THE PUBLICITY OF RESEARCH REPORTS.

It is almost an impossibility for a Research Department to be maintained efficiently without an adequate medium thru which to carry its message to the profession. There are several features requisite for an adequate Journal for the Research Department, some of the most important of which are that the message

shall be delivered quickly, accurately and legibly to the largest possible number, and particularly to those to whom it is directly due. There must be ample space for an adequate statement. It must be possible for the person making the report to assist in editing his final statement. There must be adequate assurance that nothing will be published which shall afterwards be discredited or contradicted. All of these conditions can be provided by the issuance of a National Journal every four weeks, or better every two weeks, and the question of editing and safeguarding the publication of reliable data only, has been anticipated and provided for in the organization of the Research Institute by providing an Advisory Board made up largely of the most skilled medical men, pathologists, bacteriologists, biological chemists and internists in the world, who will act in the capacity of critics of the work that is about to be published. This Board includes such men as Victor C. Vaughan, Ludvig Hektoen, Milton J. Rosenau, Lewis W. Ladd, George W. Crile, Frank R. Lillie, Walter E. Garrey, Charles H. Mayo, William H. Welch, than whom there are few if any higher authorities in their fields in the world, and whom the National Dental Association is greatly honored to have had accept this advisory capacity in the corporation. It is so apparent to every member of the dental profession that The Journal of the National Dental Association should be issued at least monthly, and that the dues should be increased \$1.00 for that purpose, as has been promised, and that, notwithstanding the tremendous importance of the research work, The Journal dollar should take precedence over the Research dollar. But while the research department has an imperative need for The Journal on a monthly basis, The Journal, likewise for its success, has an equally imperative need for the worthy enlargement and permanent efficiency of

the Research Department. The Trustees of the Research Institute, accordingly, most urgently solicit the unanimous support of the Association and House of Delegates in the providing of \$1.00 per member for the adequate enlargement of The Journal Department.

A CAMPAIGN OF GENERAL EDUCATION BY LECTURES AND CORRESPONDENCE.

This is one of the vital phases of the work and should be enlarged and its burdens distributed. The Acting Chairman of the Research Department has been compelled to spend a great deal of his time on the road, as demonstrated by the fact that, during the last four years, he has made trips to give from thirty-five to fifty illustrated lectures each year before large dental conventions, all by invitation—over 150 in all, and nearly all outside his own state. This work must be distributed and there is no reason why the department should not soon provide several persons who will be competent to present special phases of its work. We strongly urge that this be provided. The correspondence of the department is now so great that it would require most of one person's time to adequately answer the various and varied questions that are being continually asked. A dentist hungry for knowledge should, if possible, get it. Many of these questions can be answered by supplying a reprint of an article covering the question. This can only be done by the providing of the monthly, or semi-monthly, Journal and the publishing of all research articles in a reprint form. A great deal of correspondence is coming from the medical profession.

In this connection, it is a most significant fact that whereas but a few years ago the members of our profession were receiving almost no invitations to present papers and lectures before medical conventions, it is the writer's experience

and that of many others that a large number of invitations are coming from that profession, and a great many medical men are asking for special information on dental problems. We would recommend that very special attention be given to supplying the medical profession, as nearly as possible, with their request for dental information.

THE ORGANIZATION OF RESEARCH AND STUDY CLUBS.

If time permitted we would like to present plans for the nation wide organization of study clubs within the membership of the dental profession. No dentist can get the message from a research report who does not even possess the alphabet with which it is constructed. The name of an organism or of a pathological lesion has no meaning for such a dentist, and yet it is a question if ten per cent of the members of the dental profession today could intelligently interpret a bacteriologist's, physiologist's or a histologist's message as he is compelled to give it in the terminology of those sciences. This lamentable condition can only be corrected, and we are glad to say is rapidly being so, by the advent of dentists "back to the books," and to the man who does not go back to the books it means "back to the farm" or "back to the tall timbers." One of the most hopeful and delightful instants in connection with this whole research propaganda is the spirit of the dental profession in its eagerness for knowledge and willingness to study. In the city of Cleveland over fifty men have joined various study clubs and an effort is being made to have every member of that city society a member of at least one such club. This condition obtains, in a greater or lesser degree, in almost every city in the Union, and it guarantees a new era for dentistry. We urge that moral and financial support be given to this branch of the work, which responsibility the Re-

search Department has been accepting because there was no other provision for it. We recommend that the Research Institute outline courses suitable for study clubs, to be published in The Journal of the National Dental Association.

THE SUPPLYING, AT COST, OF TUNGSTEN, MOLYBDENUM AND PALLADIUM, AND THEIR COMBINATIONS, AND A FLUX FOR TUNGSTEN, TO THE MEMBERS OF THE DENTAL PROFESSION.

One of the professional services that has been rendered by the Research Department has been the supplying, in the best possible quality, the rare metals—tungsten, molybdenum and palladium, and their combinations. For example, about \$2,000 worth of these products has been furnished at cost to the members of the profession to be used as substitutes for noble metals, particularly platinum compounds. This would represent a net saving to the profession of many thousands of dollars. The fact that many dentists are repeating their orders regularly and periodically, and telegraph or write special deliveries to hurry up their orders if there is a delay, indicates that they are feeling a very definite want in the profession. The department is now supplying, and has here in its booth in the Scientific Exhibits, a limited quantity of these metals for direct distribution, also the new solder and flux for soldering tungsten and molybdenum. It has been very difficult in the past to have these metals developed constantly with the standards of quality essential for our work, but at this time it is so well standardized that we recommend that in the future it be delivered to, and supplied thru, all the dental dealers. In this connection we must state that the intrinsic value of the results of the researches of the Metallurgical department has been such that we have been exceedingly embarrassed with patent situations. We are pleased to

report, however, that an arrangement has finally been about consummated with the General Electric Company, which has been producing these products commercially, in accordance with our specifications, whereby the patent they have obtained, covering the production of this material shall not restrict the uses in dental arts, and a properly executed document will be provided to this end, in accordance with extended correspondence and interviews of the Acting Managing Director with the officers of that Company, as verified by the following telegram:

Schenectady, July 21, 1916.

Dr. Weston A. Price,

8803 Euclid Avenue, Cleveland, Ohio.

"Understanding that you fully appreciate no right or license under any other patent conveyed or implied, we will license Dental Research Corporation under Coolidge patent 1,162,342 for dental uses, only with right to sub-license others same purpose. Will have formal agreement executed after your return from Convention."

(Signed) ALBERT G. DAVIS.

This not only removes a very definite embarrassment but establishes a very helpful precedent for the future.

This department has also been greatly embarrassed by the difficulty of retaining, for the Research Department and for the dental profession, the results obtained along metallurgical lines. We are pleased to announce, however, that several patents are pending, some of which we have notice will be allowed, in which the inventor, Dr. Fahrenwald, past head of the Metallurgical Department, assigns his full right to the Research Institute of the National Dental Association, and in the same document the Research Institute dedicates to the free use of humanity. It is important and significant that practically the only embarrassments, that have arisen out of the details of the

conducting of the researches in the various departments, have had to do with the title to, and credit for, the results of the researches. And because the pathological problems are so insistent and important and do not have these embarrassments, the Trustees of the Institute recommend that, for the present while our funds are so inadequate for the various urgent problems, and since the tungsten and palladium compounds are now in condition to be supplied in good quality regularly to the profession, the researches on these problems be suspended for the present and the money used for the less embarrassing and now more important pathological, histopathological and physical problems. These patents will be discussed in more detail in the metallurgical reports. It should be stated here, however, that the Trustees were compelled to take patents on these products and dedicate them to the free use of humanity to prevent themselves, and the entire dental profession, being prohibited from using the very things which they themselves had developed.

DEVELOPMENT OF THE DETAILS OF THE ORGANIZATION OF THE CORPORATION.

The status of the Research Department in the National Dental Association at this moment is that, in accordance with the will of the National Dental Association as expressed in its Constitution, it now has a legally and competently organized Research Department, which cannot exist except as a part of the National Dental Association which elects its active membership. The members of the National Dental Association elect the members of the House of Delegates. These in turn elect the Trustees, who in turn elect the members of the Research Commission, not more than two of whom can be from any one state, to hold office for five years, and who cease to be members of the Research Institute upon their

ceasing to be members of the Research Commission. The Research Commission constitutes the active membership of the Corporation. The Corporation is the legally incorporated expression of the Commission, six of its nine Trustees being from the Research Commission. It is, in effect, an enlargement of the Executive Board of five of the Commission to a Board of Trustees of nine in the Research Institute, and an enlargement of the Research Commission of twenty-seven by the addition of the Advisory members from among the medical men, legal profession, bankers, philanthropists, etc., to, at present, forty-five. This plan of organization is in accordance with the best wisdom that could be obtained after very exhaustive study extending over years of time. The present organization while adequate, legal and efficient, is very far from perfect, and must be modified to more perfectly adapt the Research Department to the best needs of the National Dental Association and to make possible its greatest efficiency. Both the Carnegie Institution and Rockefeller Institute found it desirable to change their by-laws a few years after organizing. They advise that we will find it possible after a trial, to make changes to improve ours. The Trustees of the Research Institute recommend that the greatest possible care be exercised in the selection of the men who shall be elected to membership in the Research Commission, for the work must stand or fall on the ability of these men upon whom the active responsibility shall rest. There is no room on the Research Commission for inactive or dead timber. We also recommend, since it is recognized by the leaders of the medical profession, that the fundamental problems underlying the relation of mouth infections to systemic disease must be solved by men having a dental vision, that the dental profession gird itself with renewed vigor, growing out of a univer-

sal co-operation, and press forward the researches on these problems as rapidly and efficiently as possible. To accomplish this we believe that the very best and highest skill that can possibly be secured should be engaged. This program will call for a budget for the coming year of at least \$20,000.00. We are confident that all that is necessary is to have the members of the dental profession know of these facts and of this opportunity, and the result can be obtained.

The great world battles being waged in Europe are not more significant in the interest of the coming generations of humanity than the world battles against disease that the healing sciences are waging today, of which the humble efforts of the National Dental Association are a part. Every phase of the development of the work of this department has developed almost precisely in general principle as your committee originally planned, except the lagging appreciation of the dental profession. Your Research Department has carried the flag of ad-

vancement thru the first and second line of defenses of the enemy, by its inauguration and competent organization of the research work, and we are now about to attack the third line of defenses by establishing permanency and enlargement by endowments. A few are calling "bring back the flag, you are getting too far ahead of the army." The majority are saying "push forward with the army." The army must either be brought up to the flag or the flag must retreat back to the line of the army. This body will this day decide that question. The recommendation of your Commission, and we believe that of over ninety per cent of the members of the National Dental Association, is that you move up the army. Will you do it? One way is to make membership in the National contingent upon individual support of the Research Department.

Respectfully submitted,

WESTON A. PRICE.

Acting Managing Director of the Research Institute of the National Dental Association.