

UNITED STATES  
DEPARTMENT OF THE INTERIOR

BUREAU OF MINES  
WASHINGTON

900 F Street NW

June 3, 1936

Dr. V. H. Gottschalk  
The State College of Washington  
Pullman, Washington

COPY

Dear Doctor Gottschalk:

I have your report of May 29 covering developments at Pullman. I am glad to hear that it is probable that State support will continue for the projects in which Mr. Parkman and Mr. Darway are engaged.

With regard to the establishment of a field station at Pullman, this is largely a question of terminology. We have purposely avoided calling the office at Pullman a field station because we are not yet ready to admit that it is permanent.

With regard to the experimental work, I do not think it would be satisfactory to have the Reno analysts attempt your ordinary process analytical work. This isn't working satisfactorily even for Koster who is right on the ground and we are setting up the Boulder group with their own analytical laboratory.

Frankly, I cannot see why you should spend money for and do preliminary work on the analysis of fused magnesium salts if you do not anticipate an important lead. It was just such a lead that we hoped to get out of this interim work. Otherwise, we have merely encumbered anyone sent there permanently with a false start. It is rather obvious that Drucker started out with magnesium metal as the No. 1 objective but has so far failed to get toe hold on the problem. I think that it is a recognition of such inability to make a start on a difficult problem that caused President Holland to exert so much pressure on Finch to have someone sent from the Bureau to direct the work and it was this same feeling which caused the Director to turn down sending an inexperienced man like Ambrose. *now holding a high rank.*

In other words, I think that Holland and Finch hope that we will be able to initiate a successful attack on such problems as magnesium which have been recognized as important but which have not been tackled on account of the lack of leads. On the other hand, it is only natural that Drucker and Flee should hope that we will not unearth such promising leads so that they can point out that even the Bureau of Mines metallurgists were unable to do more than work on some of the admittedly minor projects. *not one of Drucker's faults.*



With regard to the trip to Trail concerning which you inquired from Mr. Pierson, the necessity of your making it with regard to getting data on the sulphur plant no longer exists since Ambrose will be in Trail this summer and I certainly hope to get there myself. However, if you feel it desirable to go to Trail in connection with the work you are doing at Pullman or just for your general education, such a trip is hereby approved.

It now looks as if Doerner would be the man sent to Pullman. If my recommendations go through, he will report at Pullman as soon as he can bring the work which he is doing for Maier to a stopping point, certainly by the middle of the summer. Doerner has no particular experience in electrometallurgy but has demonstrated himself to be a very competent and ingenious experimenter. I believe that he could solve the problems involved in electrothermal magnesium and so far I have not seen any arguments to convince me that this is not the best point of attack for a major Pullman Problem.

If my present plans work out, I will be in Pullman about the middle of July and we can take up the questions involved in a more or less permanent field office at Pullman.

Coleman's hysteresis loop obtained on the Einthoven looks very promising to me. I had noted that McBride from Herty's organization at Bethlehem went to Pittsburgh to study the coercimeter. Herty is not going to overlook any good bets no matter where they originate.

I have had a lot of correspondence with Clayton concerning his work on the coercive force of steels and he is putting together a paper on the subject which should serve to assert our priority for the use of coercive force in studies of steel hardening.

Sincerely yours,

/s/

R. S. DEAN

COPY



UNITED STATES  
DEPARTMENT OF THE INTERIOR

BUREAU OF MINES

METALLURGICAL DIVISION

PULLMAN, WASHINGTON

August 13, 1938

Dr. J. Koster,  
U. S. Bureau of Mines,  
University Station,  
Reno, Nevada.

Subject: Work at Pullman.

Dear Dr. Koster:

I have spent the last several days in Pullman and Spokane going over the work of the Pullman group of the Electrometallurgical Section. I am very well impressed with the progress which has been made, and I feel sure that this represents a gilt-edged investment of \$3800 of your allotment. I would call your attention to the fact that this work is completely supported from your allotment, in spite of the misleading statement in the last Congressional hearings that \$3800 was directly allotted to studies in the Pacific Northwest. This merely proves that you can list money twice, but not spend it twice, or perhaps something or other about figures and liars, I forget just what.

Mr. Doerner has made a rather remarkable showing with the State support he has been able to get. The method of beneficiating magnesite which he developed to prepare suitable raw material for his magnesium furnaces has been deemed sufficiently good by Northwest Magnesite that they have practically completed a five ton pilot plant to use it. They have offered to let us have all the operating data on this plant in return for some minor assistance, which incidentally will be most furnished by Mr. Harris, a State employee.

The most startling development, however, is in electrothermic magnesium. The oil spray condensation method is so very much ahead of the hydrogen method used by others that we are safe in launching a very active campaign to get a continuous producing unit of some size. At the moment, the principal need is a centrifuge to clarify the oil used for condensation, that is, to remove the tiny pellets of magnesium. I am going to try to get this for Doerner from lapsed salaries, but I am a little worried on this score. The rules under which we have been playing for a year or two have been the return to the Division of most, if not all lapsed salaries. Hence, we set you up with all contemplated jobs, figuring we wouldn't lose in this way. It now appears that Hedges has changed the rules in the middle of the game to put a penalty on vacant jobs just when we felt safe enough to set up a few. I'm open to suggestions---

While we could move this work to Boulder and set up a pilot plant, it would be a slimy trick to play on Dean Drucker and the State of Washington which has made the work possible. Actually what we should in all decency do, is to set up the magnesium project here with about \$50,000 per year for three years. We don't need a pilot plant; the School has, or will provide plenty of room. We just need about \$150,000 specific appropriation for magnesium.

COPY



I had a conference with Kizer of the State Planning Council and Congressman Leavy, and I think they are really going after it effectively. If you have an opportunity to discuss this with Scrugham I think you should try to get him in line. Leavy will cooperate with him I'm sure, to see that such a move doesn't react unfavorably on the support of our work at Boulder.

Unless I miss my guess badly, this most recent magnesium development, if financed, will be at least as big a scoop as manganese, - and I'm going to do my best to see that the Metallurgical Division plays a creditable part,--a little difficult in view of the record of the Bureau to date. We start in to cooperate in a big way, and then leave these fellows high and dry with one man and no other funds whatsoever.

Technologically I haven't been able to contribute much in the way of suggestions on Doerner's work except the thought (perhaps worthless) that a low melting metal like tin or lead might be a better condensing spray than oil,--but the oil seems quite good.

Doerner would like to see the Boulder plant, and if you can spare the travel money it might be a good idea for him to come there this fall and go over things.

Sincerely yours,

R. S. DEAN.

(Dictated but not read.)

cc-MR. C. W. Davis

COPY



October 3, 1938

COPY

Dr. John W. Finch  
Director, Bureau of Mines,  
U. S. Department of the Interior,  
Washington, D. C.

Dear Dr. Finch:

I want to thank you for your letter of September 22nd and the assurance of your assistance toward securing an appropriation for carrying out our magnesium research at the State College of Washington on a larger scale of operations.

I am glad that you are in agreement with my present proposal to obtain a specific appropriation over a limited period, to be expended for equipment, supplies and personnel. I am sure the State Planning Council will be pleased to know that you are submitting a supplemental budget estimate to the Department of the Interior, in an effort to provide funds for carrying forward this work as outlined in my letters of August 19th and September 10th to Congressman Leavy.

The assistance and cooperation received from the Bureau on the magnesium research during the past two years, has been greatly appreciated by the College, the State Planning Council, and the various state organizations. Mr. Doerner has done excellent work, and his accomplishments have been generally recognized. We are indeed fortunate to have him with us, directing these magnesium investigations in the State of Washington.

Yours sincerely,

COPY

A. E. DRUCKER  
Director,  
Mining Experiment Station

AED:HG



Pullman, Wash.  
Nov. 3, 1938.

COPY

Dr. R. S. Dean,  
6000 34th Place, N.W.,  
Washington, D. C.

Dear Dr. Dean:

When I was in Berkeley, a personal letter from Mr. A. H. Wild of the United States Chrome Mines, Inc. was forwarded to me from Pullman. Mr. Wild desired information regarding methods of producing chromates and dichromates, and he obtained my name from the publication dealing with the work I did at Reno in that field. I called on Mr. Wild at his San Francisco office.

Mr. Wild and his brother were the organizers of the Rustless Steel Corporation, which used a process patented by them. Several years ago Mr. A. H. Wild severed connections with Rustless Steel, and since that time he has been acquiring and developing chromite deposits in California and Oregon. I have obtained the impression that Wild is a promoter of the higher type and that he knows how to handle his present undertaking.

Mr. Wild informed me that he intends to build a plant to make about 20 tons of bichromate per day, and that he has a market for that relatively small production. He claims only slight knowledge of the technology involved, and is seeking technical assistance. He desired cost estimates for the installation and operation of such a plant, but I had no data upon which to base those estimates, and declined on the grounds that I could not act in a consulting capacity. Mr. Wild then asked if I would be interested in a position to take charge of his chromate operations. I replied that if an offer were accompanied by evidence of adequate financial resources, it would be given serious consideration.

I am disclosing these details now so that you may have time to consider whether or not you can arrange such improvement in my status that I will not be tempted to make a change. Frankly, I would be very reluctant to quit the work on magnesium until it is completed.



Dr. R. S. Dean (2)

Nov. 3, 1938

Enclosed are copies of subsequent letters to and from Mr. Wild. You will note that I suggested an informal cooperation for the purpose of carrying out a more complete study of the work on chromates started at Reno. Dean Drucker is very happy to approve this plan. Is any official action by the Bureau of Mines required in this case? Please advise me as soon as possible.

Sincerely yours,

H. A. DOERNER

HAD:HG

Enc.-3

PERSONAL

COPY

P. S. Could you condense your reply in a night letter, collect?



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF MINES

College Park, Maryland.  
November 8, 1938.

PERSONAL

Mr. H. A. Doerner,  
U. S. Bureau of Mines,  
The State College of Washington,  
Pullman, Washington.

COPY

Dear Mr. Doerner:

I wired you today in reply to your letter of November 3, stating in effect that the Bureau would approve your undertaking the direction of the cooperative work with Chrome Mines, Inc., provided a satisfactory agreement was made between Chrome Mines and the University.

With regard to your possible permanent connection with Chrome Mines, Inc., I can only say that I regard the prospects of a considerable Federal appropriation for Pullman as good. If this materializes and a project as large as, or larger than one of our regular stations is established, you would certainly receive first consideration as the man to take charge of the group, and paid in line with similar supervisory positions at other stations. I have no idea how satisfactory a connection Mr. Wild is in a position to offer; but I venture to suggest that some of the advantages of such a connection could be obtained by conducting experimental work for that company through the University, and perhaps making some arrangement with Mr. Wild with regard to patents on processes or other items which you might properly contribute.

Very truly yours,

/s/

R. S. DEAN.



STANDARD FORM No. 14A

APPROVED BY THE PRESIDENT

MARCH 10, 1926

# TELEGRAM

OFFICIAL BUSINESS—GOVERNMENT RATES

GOVERNMENT PRINTING OFFICE

G-7134

FROM INTERIOR DEPARTMENT

BUREAU .....

CHG. APPROPRIATION .....

SK315 47 GOVT NL=TDW COLLEGE PARK MD NOV 8 (1938)

H A DOERNER, U S BUREAU OF MINES\*

THE STATE COLLEGE OF WASHINGTON PULLMAN

OUR POSITION AT PULLMAN SUCH THAT YOU SHOULD UNDERTAKE TO ASSIST  
IN ANY REASONABLE COOPERATIVE EFFORT ARRANGED BY DRUCKER.  
COOPERATION ON CHROMITE PROJECT THROUGH UNIVERSITY IN ORDER.  
DO NOT MAKE COMMITMENTS WHICH WOULD INTERFERE WITH EXPANDED  
MAGNESIUM PROGRAM TO START JULY ONE IF APPROPRIATION MADE.  
LETTER FOLLOWS.

R. S. DEAN

COPY



College Park, Maryland.  
November 23, 1938.

RSD:atc

COPY

Memorandum for Mr. J. H. Hedges:

Subject: Supplemental estimate for magnesium  
work at Pullman, Washington

The estimate of \$35,000 for the next year's work at Pullman, Washington, was prepared last spring, at which time the work on magnesium was progressing quite satisfactorily; and it was felt that with an annual appropriation of \$35,000 for this work it could be brought to a satisfactory conclusion in five or six years.

Since that time some totally unexpected developments have been made in the magnesium production process. These developments bring our goal of cheap and pure magnesium so much closer that it is highly desirable to push this work into its final stages. The State of Washington has agreed to cooperate with such an increased schedule of operations, and has found means of providing us with a very considerable additional space over that which was available for the work when our earlier estimate was prepared.

Further, the Northwest Magnesite Company, the largest producer of magnesite in the Northwest, is now installing a pilot plant which will provide us with a sufficient quantity of high-grade raw material to permit large-scale experiments. Suitable raw material in quantity was not available when the earlier estimate was made.

The total expenditures estimated for the completion of this magnesium project are no greater than we had previously stated; but we now feel that the problem can be efficiently completed in three years if the funds are provided. The estimated funds for this purpose are \$100,000 for the first year, and \$50,000 for the next two years. We are accordingly attaching a supplemental estimate for \$65,000 which will be needed in addition to the estimated \$35,000 included in the regular budget estimate.

R. S. DEAN.

Enclosure 926583.

cc: Files

Met. Div.-C.P.

Met. Div.-W.O.

H.A.Doerner

COPY



COPY

CHICAGO DEVELOPMENT COMPANY

140 South Clark Street, Chicago.

September 7, 1938.

Mr. H. A. Doerner,  
Emerson Apartments,  
Pullman, Washington.

Dear Mr. Doerner:

Mr. Dean has told us about your work on the purification of magnesite and the electro thermic preparation of magnesium, and has handed me a copy of Report of Investigations 3406 in which certain features of your work are very briefly and incompletely disclosed. Mr. Dean has further stated that you would be interested in the possibility of building up a patent structure covering various methods of treating magnesites from the northwest for the manufacture of magnesium.

I believe he mentioned our company to you, and you may know something of our work in the metallurgical field. Briefly, we have undertaken to exploit certain metallurgical inventions and have met with fair success in our operations to date. We are interested in working up such new fields as the electro thermic magnesium field appears to be in this country and, while we do not have sufficient information concerning your possible inventions to enable us to say whether or not we would be interested in working out some agreement with you for the patenting and exploitation of your magnesium inventions, we would like to have the opportunity to consider such an arrangement. You will recognize that the art of making magnesium by the electro thermic method is one that has been very thoroughly covered from a patent standpoint, and also that the flotation art is likewise one in which a great many patents have been issued. Consequently, we could not say without some study whether your inventions could be sufficiently protected to make them attractive from an exploitation standpoint. In connection with flotation, I may say that we have a number of interests, particularly in connection with positive ion reagents and it is possible that we might be able to bring about some combination of interests which would be effective.

If the general proposition of our undertaking the exploitation of your inventions appeals to you, we will be glad to have a description of just what you consider to be your invention together with a brief statement of the prior art as you understand it. We do not have a fixed fee or percentage for handling work of this kind, but if it should appear that your contribution is sufficiently broad to justify our going into it, I should think that we could handle the patenting and exploitation of this group of inventions, without cost to you,

COPY



COPY

Mr. H. A. Doerner-2

September 7, 1938.

for approximately one-third of the profits which would be derived therefrom.

In view of the disclosures and the report of investigations referred to, it is very desirable to take any action which is contemplated at an early date. I would, therefore, appreciate hearing from you promptly along the above lines.

Yours very truly,

CHICAGO DEVELOPMENT COMPANY

/s/ John J. McLaughlin

JJM:L

COPY



CHICAGO DEVELOPMENT COMPANY

140 South Clark Street, Chicago

October 28, 1938.

COPY

Mr. H. A. Doerner,  
Emerson Apartments,  
Pullman, Washington.

Dear Mr. Doerner:

You will excuse our failure to answer your letter of October 10th promptly. We felt that we wanted to analyze your contributions quite fully before giving you a definite reply, but with things as they have been here, we still have to go over some of the matter in the two publications before making any definite proposal.

It is probable that we will want to go ahead on some basis generally similar to that discussed in our letter of September 7th, so we ask you to wait a few days more and we will probably send you a preliminary draft of an agreement to check over. I have been wanting to see Dr. Dean, because I thought possible he could give me some information which I didn't have, but as things stand, we will try to handle the matter ourselves here without waiting to get his reaction.

Very truly yours,

/s/ John J. McLaughlin

JJM:L

COPY



CHICAGO DEVELOPMENT COMPANY

140 South Clark Street, Chicago

December 3, 1936.

Mr. H. A. Doerner,  
Emerson Apartments,  
Pullman, Washington.

Dear Mr. Doerner:

We have finally gotten around to having a tentative agreement prepared on your magnesium developments, and enclose two copies of the same for your consideration.

We have analyzed the three developments referred to as carefully as possible from both a patent and commercial standpoint. We have not been able to find a clean-cut answer to questions relating to either patentability or commercial utility, although we think there are definite possibilities of obtaining patent protection and exploiting the inventions. Concerning the latter, it is possible that additional work may have to be done, but this is something we will have to face when we come to it. We are approaching the entire matter, therefore, as an apparently worth while gamble and we believe that you, as well as ourselves, should look at it in this manner.

In studying the situation, it seemed to us that, considering our part of the undertaking, the proposal which we made of a third of the profits to us may turn out to be small, but we have written the agreement as discussed in our letters, placing no obligation on ourselves, however, to conduct any appeals or interferences which might appear to be necessary as time goes on. In certain foreign countries, opposition proceedings might be encountered, but, since we have no obligation with respect to the prosecution of foreign cases, it seems unnecessary to make any exception as to oppositions.

The question of what would happen in the event of any unusual situation arising, such as the requirement for appeal or the requirement for conducting an interference is one that probably could be answered between ourselves best when the occasion arises.

Another matter that occurred to us is that, in the event additional applications in the United States may be necessary to protect future inventions which you might

COPY

COPY



Mr. H. A. Doerner-2

December 3, 1938.

COPY

make along the same line, we should have the right to handle such applications, because they could probably not be separated very well from what you have now. For obvious reasons, however, we cannot very well sign a blank check to prosecute applications on any inventions which you might have along this line, and that is the reason for the wording in the agreement. We think it obvious that, if you should develop anything worth while that would go along with what you have now, or some improvement of your present processes, we would unquestionably proceed on the same basis.

Trying to work out definite answers to some of the questions arising in this whole situation has taken more time than we would have wished, but we believe that we have covered the ground work pretty well and are ready to go ahead pretty promptly now if you are satisfied with the arrangement. We urge you to study the proposed agreement carefully, however, to be sure that there is nothing objectionable to you. We tried to be fair throughout and prepared the agreement to protect both parties. If you find the agreement satisfactory, please execute it in duplicate and return the two copies to us. We shall immediately have them executed and return your copy.

As soon as you can, we would appreciate your enlarging somewhat on the description of the flotation method covered in numbered paragraph (1) of your letter of October 10th. We will try to work out one application at a time and this is as good a one to start/<sup>on</sup> as any. In commenting further on this process, we would appreciate your pointing out what you believe to be the maximum scope of patent protection to which you are entitled on this process. Apparently you can use either tannin or sodium silicate, or the two together. Do you know of any other substances that would have the same action? We presume that any alkali silicate such as potassium silicate would probably do the same job.

Looking forward to an early reply, we are

Yours very truly,

/s/ John J. McLaughlin

JJM:L

COPY



COPY

COPY

THIS AGREEMENT between H. A. DOERNER of Pullman, Washington, and CHICAGO DEVELOPMENT COMPANY, an Illinois corporation, having its principal office at Chicago, Illinois, hereinafter called the Corporation;

WITNESSETH THAT:

WHEREAS, Doerner has made certain inventions relating to the treatment of magnesium bearing ores, including methods of concentrating low grade magnesite, the electrolytic deposition of magnesium from a fused halide, and improved methods of condensing magnesium from a vapor phase following the carbon reduction thereof; and

WHEREAS, the inventions heretofore made by Doerner, and other inventions which he may make in the future relating to the treatment of magnesium bearing ores may be protected by patents in the United States and foreign countries; and

WHEREAS, Doerner desires the assistance of the Corporation in protecting and exploiting his said inventions, and the Corporation is interested in assisting Doerner, in order that both parties may profit by such exploitation;

NOW, THEREFORE, in consideration of the premises, the covenants, mutual promises and undertakings of the parties, it is agreed between them as follows:



COPY

1. Doerner agrees to disclose to the Corporation all inventions which he has now made, or which he may make in the future, relating to the treatment of magnesium ores, and relating to the treatment of magnesium metal, including purification processes, and including such information as may be required to file and prosecute patent applications in the United States and foreign countries covering the disclosed inventions.

2. The Corporation agrees to secure the filing and prosecution at its own expense, employing attorneys of its own selection, of applications for United States patents on the three inventions referred to in Doerner's letter of October 10, 1938, which are identified herein as follows:

(a) The concentration of low-grade magnesite by a two-stage flotation method in which silicates are removed previous to the flotation of magnesite;

(b) The electrolytic deposition of magnesium from a fused halide on a pool of molten magnesium metal; and

(c) The use of an oil spray to condense magnesium metal from the gaseous products obtained when magnesia is electrothermally reduced by carbon; provided, however, that the Corporation shall not be required to prosecute any appeals or interferences. In connection with the above inventions, the Corporation shall also have the



COPY

right to file foreign applications for patent in any or all countries, but shall not be required so to do.

3. The Corporation shall have the sole right to secure the exploitation of any invention coming under this agreement, and it agrees to employ reasonable diligence in exploiting the said inventions. Should the Corporation succeed in exploiting any or all of said inventions, either by direct sale thereof, by license on a royalty basis, or in any other way, it shall receive one-third ( $1/3$ ) of the total net amount received through any such exploitation, and Doerner shall receive two-thirds ( $2/3$ ) of any such net amount.

The term "net" as employed above, shall mean all money received by the Corporation through exploitation of Doerner's inventions, less the expense of doing business, the expense of doing business to include taxes, overhead, travelling or similar expense, but not to include the salary of any officer of the Corporation. It may include salaries of employees other than officers, however, whose work can fairly be said to be required in connection with exploitation of the inventions. Should the money expended by the Corporation in doing business involve the exercise of any other rights, or the carrying on of any business other than that relating to Doerner's inventions, then such expenses shall be pro-rated in the ratio of business done. The sense of this paragraph is that Doerner shall



COPY

receive the named percentage of all moneys which the Corporation, by fair bookkeeping methods, may be able to establish as a profit on Doerner's inventions.

4. Should Doerner make any future inventions in the fields relating to this agreement, the Corporation may handle the same on the same basis as the completed inventions, all as set out in this agreement; provided, however, that the Corporation shall not be required, after examining complete data with respect thereto furnished by Doerner, to undertake the filing and prosecuting of such future inventions.

5. Doerner agrees to sign all papers and perform such services as may be necessary to enable the Corporation to file any applications for patent which it may file under this agreement, and to place the Corporation in position to exploit the inventions covered by such applications, including the assignment of such inventions and applications, and the patents to be secured thereon, should such assignment be advisable or necessary.

6. The Corporation agrees to keep Doerner advised of the status of any applications for patent, and of any agreements with respect to exploitation of his inventions,



and, in the event any income should be received through  
the exploitation of any such inventions, to report to  
Doerner at suitable intervals agreeable to both parties.  
Such reports shall be accompanied by payments to Doerner  
of his proportionate share of any profits as shown by such  
reports.

Executed by H. A. Doerner at Pullman, Washington,  
this \_\_\_\_\_ day of December, 1938.

Witness:

\_\_\_\_\_

Executed by Chicago Development Company this \_\_\_\_\_  
day of December, 1938.

CHICAGO DEVELOPMENT COMPANY

By \_\_\_\_\_  
President.

Attest:

\_\_\_\_\_  
Secretary.

COPY



COPY

December 16, 1938

COPY

Mr. John J. McLaughlin  
Chicago Development Company  
140 South Clark Street  
Chicago, Illinois

Dear Mr. McLaughlin:

The contract you sent to me on December 3rd, with a few minor changes, would be entirely satisfactory if my patents did not involve the result of work accomplished with State funds. But some of the terms of the contract as well as recent events have made me realize that the situation has become so complex that I do not feel at liberty to accept your offer.

The purpose of my present work is to encourage and assist the establishment of a magnesium industry in the Northwest. The work is supported by Federal and State funds, chiefly the latter. I have always believed that inventions resulting from such work should be patented, that the patents should be assigned to a public agency charged with the duty of exploiting and administering the inventions, and that the net income of that agency should be divided between the inventor and the research institution.

Unfortunately the Federal Government has not created such an agency nor made any satisfactory provision for the disposition of patents resulting from work in public service. A few days ago I learned that the State College of Washington has recently organized an agency for exploiting inventions that result from work under its administration. I am under no obligation to deal with that agency, but since my work is chiefly financed by State funds, I consider it to be the proper agency for exploiting the patents under consideration.

*\* Footnote*

If you were exploiting my inventions, it might be most profitable (and by the terms of the contract quite proper) for you to sell control of the patents to the Dow Chemical Co., and Dow could hold the patents for the sole purpose of preventing competitive developments. Under that contingency I would be a helpless partner in sabotaging the cause to which I am committed.

There are other complications. Mr. Harris is co-inventor of the flotation process, and his salary is paid by



John J. McLaughlin (2)

12/16/38

COPY

the College. Also, the Northwest Magnesite Company is ready to cooperate in the commercial development of the flotation process, and an agreement regarding their right to use the process must be arranged at once.

I have, therefore, decided to apply for a patent on the flotation process as soon as possible, and for the present make no commitments except an agreement with the Northwest Magnesite Company for a non exclusive license that specifically excludes any connection with production of magnesium metal. In this way the use of the process for production of refractories will be separated from its application to the production of metal, and the latter can be combined with other patents for the production of metal.

I appreciate the interest you have shown in this matter, and deeply regret that circumstances and developments here prevent our reaching an agreement at this time.

Very truly yours,

H. A. DOERNER

HAD:HG

\* Note. The flotation patent was assigned to the Research Foundation of W.S.C. No other patent relating to this program has been issued. The Research Foundation did not handle the flotation patent in a satisfactory manner.



CHICAGO DEVELOPMENT COMPANY

-----  
140 South Clark Street, Chicago

December 30, 1938.

Mr. H. A. Doerner,  
Emerson Apartments,  
Pullman, Washington.

**COPY**

Dear Mr. Doerner:

We have your letter of December 16th and appreciate your position in the matter generally. For the time being, at least, we shall consider the matter closed, but, if as you go ahead you think there is some way in which we may be of help to you, we shall always be glad to hear from you again.

Sincerely yours,

CHICAGO DEVELOPMENT COMPANY

/s/ J.J. McLaughlin

President.

JJM:L

**COPY**