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Sunday, June 2, 1935

Dear Mr. Shankland,

It does not seem possible - but it is true another Case Commencement is here! It is my 45th! I went to the Alumni Dinner yesterday - there were about 500 old grads there, the largest number ever. Governor Davey made the jannicpal address; since he is the Governor of our State, I will not express my opinion of effect. Today was Baccalaureate Sunday at Epworth; it was very good.

I have, certainly, missed you this year! Not only in regard to work accomplished, but quite as much in regard to "conferences". Twenty hours a week of a graduate student's time, broken into half a dozen intervals, does not seem very effective as a substitute for full time of Martin or Shankland.

Again I want your suggestions in regard to that paper on the Sandy Hook Experiments; you are the only one who really knows what it is. We first sent it to Editor Tate in February 1934. I received no definite word about it till I talked in person with Tate at the St. Louis meeting of the Physical Society last November. I wrote to you about it then. He returned it for "slight revision". I made a few corrections, clarifying certain statements, but did not

in December,
shorten the paper, and returned it. I offered to pay the \$3 per page charge, in whichever journal it was published, and in addition agreed to pay the cost of the illustrations, as there were several of an "illustrative" nature, ^{and to purchase 500 reprints at total 200±.} The whole, text and illustrations would make about 29 pages when printed. The Ethn. Dipt paper was 40 pages long. The MSS. was returned as nothing was heard about it till I saw Tate and had a half hour's talk with him at Washington in April last. He expressed great interest in the paper, and a desire to publish it, but he still felt that it was not in suitable form. The MSS. was returned on May 13, with the decision that it could not be used in "Modern Physics".

He suggested that by dividing it up and reducing it, it could be printed in three or four short papers in "Physical Review" and "Physics". He went so far as to rewrite Parts I and II, "Pressure Effects" and "Wave Form", which in the original consist of 30 pages with 25 Figures. His "rewrite" consists of 12 pages with 17 Figures. The introduction, telling why and how the work was carried out, of those pages, is reduced to half a page, omitting the references to Dr. Hooke's work, to the Ordnance Department, etc. The Figures omitted are of the baroscope, the 14-Inch Rifle, the phenodeik vibrator, and several records of the impact of the shell and others.

I still think the paper is a dignified piece of work, worthy of being on record. It represents ten years of solid research time, under very exceptional conditions and facilities. The question is how to publish it. These are the possibilities: —

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This is the only available sheet of paper!

- A. Print three short articles, two in "Physics", and one on "Normal Velocity of Sound" in the "Physical Review".
- B. Try to print the whole paper as now written in: *Journal of the Franklin^{Institute}*, or Proc. American Philosophical Society, or in Carnegie Institution, or National Academy Memoirs. These possibilities are all doubtful.
- C. Print the paper ourselves in pamphlet form as "Contributions from Dept. Physics, C.S.A.S."; This would be the first but it might establish a series. I have already offered to pay \$200 or more for publication in "Physics". It would cost but little more to print it ourselves.
- D. Publish in book form. I think I could get the Macmillan Company to issue a third book in the series on Sound, My "Anecdotal History of the Science of Sound" is now already the final page proof has been read; it will probably be held till the first Autumn announcement, in August. The text of this "Velocity" book would be enlarged by half, making a book of 150 pages, like "Science of Musical Sounds". The new material would be a description of the

Phonodisk in general, and additions to the descriptive matter throughout; with a general historical account of the measurement of the velocity of sound. Probably this third book would have to be "guaranteed" to the publishers; but the amount I have already expected to spend would probably be a sufficient subsidy. The title would have to be somewhat popularized; perhaps "Sound Waves, Their Speed and Shape", or something else.

I will be very grateful, if you will give me your frank, honest opinion as to the most dignified and effective way of publication, ~~without~~ any sentimental or personal bias.

The book idea has just come to me, but a series of three books on Sound already begins to appeal. I think they would be as creditable as, say, three of Jeans' books. Probably the pure research part would not be disgraced in such a book, and it would have the advantage of being separately available on the book shelves. Probably such publication could be made before Christmas. Please give me your reactions as soon as convenient, as I want to get the matter under way before going on a summer vacation (possibly to England).

With kindest regards, and very best wishes

Sincerely

Dayton C. Miller