

C O P Y

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Prof.em.Dr.,Ing.Martin Wagner,33 Bowdoin Street, Cambridge,
Mass., U. S.

15 November 1954

To the Aviation Division
of the Marine Corps
Pentagon Building
Washington, D. C.

Sirs,

I gather from Collier's magazine of November 1954 that you commissioned Mr. Buckminster Fuller to design and to build a spherical shelter for the Marine Corps.

In this connection I should like to lead your attention to the fact that the U. S. Patent Office patented me a shelter type, as designed by Mr. Buckminster Fuller, on April 7th, 1942. A copy of my patent Nr. 2 278 956, referring to "army housing" in Form of "spherical triangles", and so on, is herewith enclosed.

I have, of course, no intention to disturb your research work as such, as long as it is mere research work and not yet commercially utilized. But since I know that the practical application of your research work would automatically lead to an infringement of my patent, I would be forced to attain an injunction through the courts.

Regretting that I am not in a position to overlook my own interests, I remain.

Yours sincerely,

/s/ Martin Wagner

Martin Wagner.

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MEMORANDA from B. Fuller to Donald W. Robertson, Esq., Patent Attorney

Regarding Professor Martin Wagner of Harvard University School of Design, who wrote Col. Lane, putting the Marine Corps on notice that he had a patent which he alleged covered the invention of the paperboard domes which he had seen in Collier's Magazine, Page 92, 26 Nov., '54:

B. Fuller has known Professor Wagner since 1940 when he showed up at Potomac Park Trailer Site in District of Columbia, where B. Fuller had on exhibit his first converted grain bin deployment unit, invited to Washington by Defense Departments for their official inspection. Professor Wagner, who came to Harvard from Germany with Walter Gropius, asserted to Fuller and to Robert Colgate, who had backed Fuller's deployment unit, that he had German invention and patent covering the art. He showed us his publications and Fuller's Patent Attorneys, Fish, Richardson and Neave (Philip Churchill), where Fuller had three patent cases in application, covering his grain bin type domes, looked up Wagner's patents, and it was discovered that Wagner's patent and claims did not anticipate Fuller's family of inventions at that time, or even come near it, nor did Wagner's claims in any way interfere with Fuller's 1927 "Dymaxion" type partially round, partially hexagonal set of shelter inventions. Professor Wagner admitted, on inspection of the Fuller deployment unit, that he had moved in error and he doubted if his claims anticipated the structure he witnessed in the Park, - that he had really moved through emotion due to a proprietary sense in respect to spherical structures, - an emotion which Fuller pointed out to him covered a great deal of Nature's territory.

Professor Wagner's visit on that occasion did Wagner no good, gave him an increased sense of ineffectiveness and, on the other hand, through partial scare caused to Colgate, tended, with other scaring events of equally innocuous value, to dampen the backers' dreams of an unimpeded short-line highway to success. Net: Wagner does nobody favors with his emotional skirmishes.

In subsequently filing the Wichita house patent invention claims in 1945 and 1946, Wagner's patents, including as best I can now recall one taken two years after the Potomac Park incident, together with many others in the structures category, were carefully reviewed. In this case Kenyon and Kenyon were the patent attorneys, and it was clear that Fuller's inventing trend in no way was taught by Professor Wagner's inventions. All of Wagner's are in the class of one family of great circle, gore-type structures similar to those employed in grain bin roof and silo-top structures, which have centuries precedent in the globe-making techniques. All that could be of technical invention importance in Wagner's curvilinear structuring would be some secondary surprise value in the arts of joinery. Furthermore, to the best of Fuller's knowledge, Professor

Wagner has never reduced his invention to practice and taken any of the capital risks in time and money required, not only to reduce invention to prototype practice, but also to carry them through the far more tortuous months and years of translation to inhabitable cleanliness within the high speed precision of industrial mass production, distribution, installation, service and removal functioning.

Professor Wagner is typical of, and slightly more vexatious in the general class of vague idea dreamers within the whole frontiering wave-crest of the potentials of integrating technology and its complex suggestiveness.

So many were the dreamers who had dreamed the Dymaxion car that when Fuller would leave it at the curb it would be immediately surrounded by such dreamers in numbers so great as to impede and protest against Fuller's re-entering it and driving it away.

Professor Martin Wagner, on two occasions, 1952 and 1954, sat in the second row of Hunt Hall Auditorium, Harvard University, and listened to B.Fuller give three-hour lectures on each occasion, reviewing 27 years of his structural search, invention, and industrial prototype developments, intimately illustrated with slides detailing each phase and leading from the Dymaxion house of 1927 up to and through Geodesic structures to the late spring of 1954, in response to which Professor Wagner expressed his enthusiasm and in no way protested that he was author of any phase as, indeed, he was not.

Two matters are clear to Fuller in regard to Wagner's letter written to the Marine Corps:

1. That he was making a sneak attack, hoping to take a free ride on Fuller's work because of his nuisance value.
2. Having invented the special double dome paperboard Geodesic structuring of the Triennale type dome, one extra of which was erected for the Marine Corps at Quantico, Fuller knows that by Fuller's own purposing, the complexity to the eye is so great as to obscure its theoretical system from quick analysis by even those intimately associated with him. The optical perplexity required Fuller's dispatching of an expert assistant, both to Quantico and Italy to effect their installations. Wherefore, its publication in Collier's, Page 92, 26 November 1954, renders the photographic information approximately inexplicable as to method of accomplishment; wherefore, Professor Wagner's assertion in respect to the dome as he saw it in the Collier's picture, as mentioned in his letter to the Marine Corps must perforce have arisen, alone, from his emotional proprietary complex in respect to all spherical structures.

In substantiation of this structural nonreadability of the Triennale dome, it is to be mentioned that when the two domes were completed at Milan, Italy, the Italian architects, who are noted for their astuteness in fine structural tasks, who had not seen the domes erected (due to the speed with which they were put together), on witnessing the double dome paperboard structures, inquired as to what was inside the paperboard to support the weight. "Concrete or steel?", they asked. So invisible was the method of structuring through the means of hidden interior webbing and angling that they could not accredit that its continuously overlapped interior or exterior paper surfaces could provide the structural strength required by so large a clear span, - able to support at least four men walking about its zenith. Its triangular printed windows may or may not be opened at will, and have no relation whatever to its primary self supporting strength, yet these only visible triangles are the triangles Wagner saw and upon which he acted. Here is the key to the structural camouflage.

If Professor Wagner's impetuous sneak attack should result in impeding, or cutting out any of the activities promulgated by the Marine Corps or the Navy with Fuller, which latter defense department actions take long to come to fulfillment, even after defense officials have made commitments, and therefore require our full capital commitment and credit extension to service, - thus putting us in a position to suffer great and, in fact, fatal loss if payments are delayed so that our secondary capital underwriting resources are foreclosed by the banks, could Fuller not recover from Professor Wagner, for his reckless acts, provided Wagner has dollars in his tenure-secure professional nest egg?

C O P Y

DEPARTMENT OF THE NAVY
BUREAU OF AERONAUTICS
WASHINGTON 25, D.C.

In Reply Refer to

Aer-PL-2/158
9 Dec 1954

Professor Martin Wagner
33 Bowdoin St.
Cambridge, Massachusetts

Dear Professor Wagner:

Your letter of 15 November 1954 pertaining to your patent No. 2,278,956 has been forwarded to this office for consideration and additional reply.

An investigation has been made to determine whether the Marine Corps has or is infringing any of the claims of your patent relating to building structure.

It has been determined that there is no present or past infringement of any valid claim of your patent No. 2,278,956 by the Marine Corps.

Sincerely yours,

/s/ F. J. Schmitt

F. J. SCHMITT
Patent Counsel

Copy to:
Col. H. C. Lane
U. S. Marine Corps
Head, Materiel Branch
Division of Aviation

ONR-Code 311
E. A. Kruspe- MA-4572