

椅子에 關한 研究

A Research on Chairs

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國 文 抄 錄

이 研究의 目的은 建物內部에 있어서의 椅子(chairs in interiors)의 design의 發達을 明白히 하는 데에 있다.

研究의 方法은 第一次世界大戰 以前부터 現在에 이르기까지의 椅子의 Design을 使用된 材料의 種類 卽 金屬, 桐木材, 合板, 플라스틱等을 中心으로 個個의 Designer, 그가 屬한 나라와 製作된 時期에 따라서 比較 檢討하였다.

結果로서 人間이 디자인한 椅子는 오랜 歲月을 두고 建築의 樣式과 材料 및 技術(Skills & Technology)에 따라서 變遷해 왔으며 第一次世界大戰을 前後하여 그 特徵이 많은 差異를 보이고 있다는 것을 알 수가 있었다.

第一次大戰以前의 椅子는 그 디자인이 舊式建築의 內部와 같이 複雜하고 椅子自體의 美에 더욱 注重한 디자인이 많고, 大戰以後의 그것은 現代建築內部(Interior)에 對한 考慮가 깊으며 建築內部와 調和되어 있고 새로운 材料가 가진 Design의 可能性을 充分히 살려서 새로운 建築內部的 線에 調和된 單純하고도 敏感한(Simple & Sensitive according to the interiors) 特徵을 갖인 線으로 이루어지고 있다는 것을 알 수 있다.

INTRODUCTION

This paper attempts to find out the development of designs of chairs in interiors. It will be discussed by dividing into two periods: the pre-world war I, and the

post-world war I up to date. In the first part it will concentrate on four types of design materials: plywood, metal, solid wood, and plastic chairs. In the second part it will deal with only two materials: Metal and solid wood. Under each material one designer and manufacturer, the country where the designer worked, and related dates. It will discuss how the design material was exploited by each designer within its potentials including how chair was made, what design elements could do, whether he used the potentials, and the potentials were fully exploited. And it discusses the success of the chair design material as shown in the interiors or failure of the chair design material. Finally under each material one picture of chairs, one or two pictures for the chairs in the interiors, of the chairs will be provided. A bibliography will be attached to the end of the paper.

I. THE CHAIRS SINCE THE SECOND WORLD WAR UP TO DATE

A. Plywood Chair: by Charles Eames: Molded plywood chair was designed by Charles Eames and manufactured by the Herman Miller Company. Eames was born in 1907 in St. Louis. The chair was devised during the Second World War. His first group of molded plywood chairs were exhibited in 1946 in the Museum of Modern

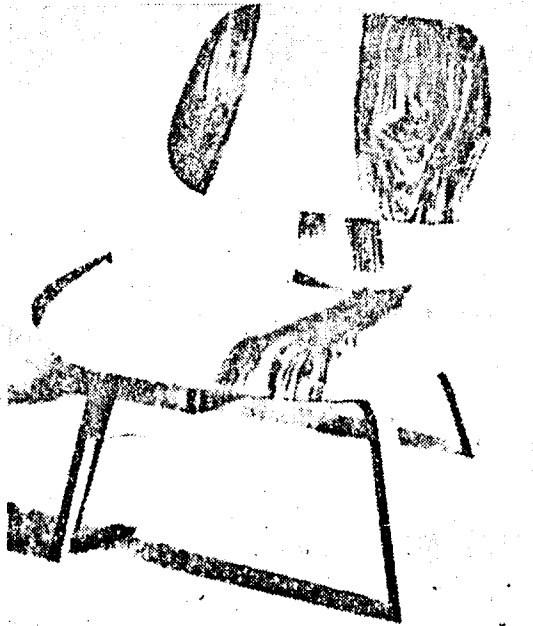
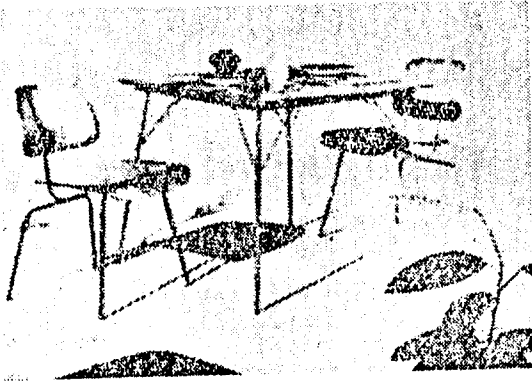


Fig. 1

Art. (SEE Fig. 1)¹⁾

There are many different characteristics of plywood from other materials for its popularity among designers and users. The plywood is usually less expensive than solid wood; it is available in much larger piece than solid wood; stronger than solid wood of the same thickness and weight. It is less possible extremely to shrink, crack, or warp than solid wood; it is not split or punctured along its grain; several pieces of it can be easily matched to produce symmetrical figures. Therefore, it is

Fig. 2

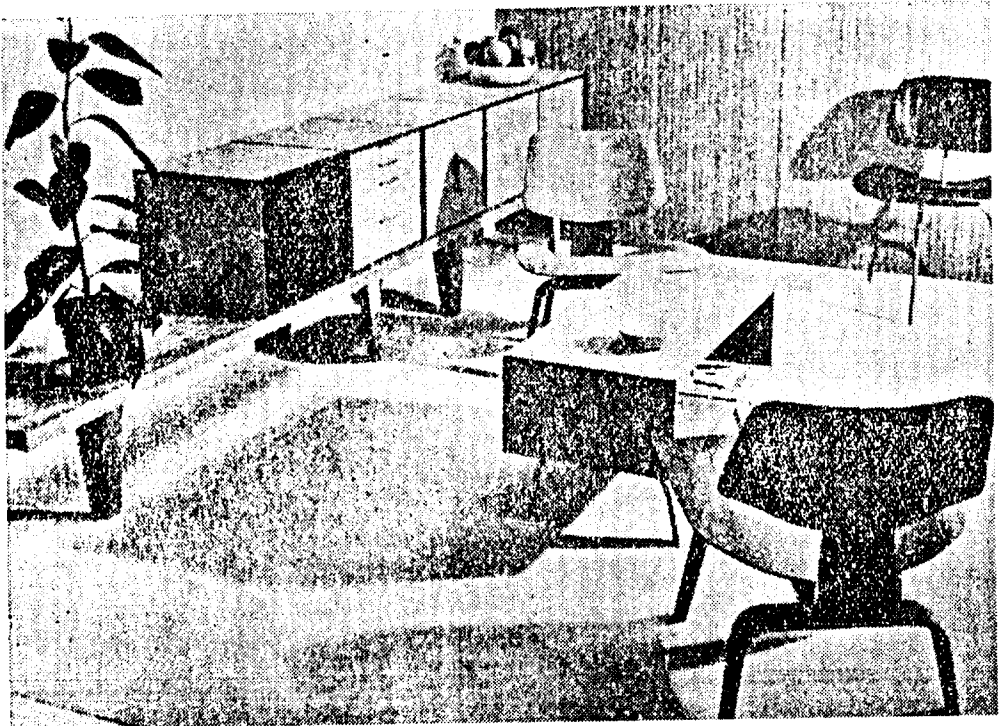


possible to cut out plywood in free forms, or to make holes in it, without sacrificing its strength. Thus two cut-out sides may replace the ordinary legs, arms, and back supports of a chair. They can be connected by varying seats and backs of the chair.

According to the described characteristics of plywood Eames designed the plywood chair. Because of unusual characteristics of plywood Eames became the universally popular designer. His chair has become a contemporary classic. Especially the laminated wood can be used as strong lags even though thin and light.

As plywood can be bent, details and sculptured curves can demonstrate beauty by modern production techniques. The seat and back of chairs molded to the contours

Fig. 3

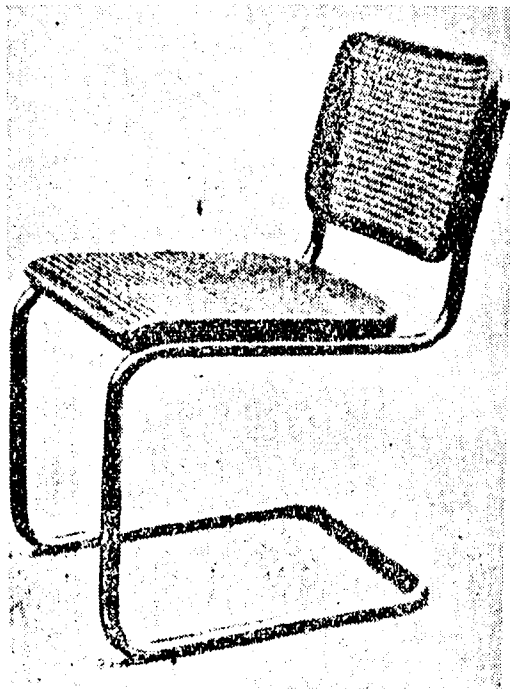


of the human body, sometimes with the rubber mounts provide comfort for users, which no other material chairs can not do. Thus it is also very significant for the interior designers because of its beauty and convenience. The chairs are available in two basic models as: dining room chairs and lounge chairs. It gives to our furniture various lines unprecedented in our interiors.

By exploiting these lines and its strength which can be arranged against any kind of architectureres, rigid, geometric, or straight, Eames was very successful in the selection of the design material of the plywood,²⁾ as the interiors shown in Figure 2³⁾ and 3⁴⁾.

B. Metal Chair by Marcel Breuer: Marcel Breuer, a Hungarian architect, was born in 1902, and worked in London for a while. Later he settled down in the United States and become the designer of the famous Tubular Steel Chair while in Germany. (SEE Fig. 4)⁵⁾ By 1929 Thonet Industries in Austrslia mass produced Breuer's designed tubular steel chairs and spread his chairs throughout Europe and the United States.⁶⁾ His tubular steel chair has been the prototype for almost all tubular metal furniture from that time.

Fig. 4



Breuer analyzed forms in terms of line and the bentwood linear forms of Michal Thonet's chairs. First, Breuer worked with tubular steel instead of wood and invented the first continuous tubular steel frame. Second, he completed his design with a loose canvas seat and back of a chair. In his significant invention was that furniture could be light, of linear form, and easily mass produced by machines. His design of the tubular steel line was not only used for chairs but also for other furniture. Therefore, it is impossible to describe twentieth-century office furniture without his name.

As it is shown in Fig. 5⁷⁾ Marcel

Fig. 5

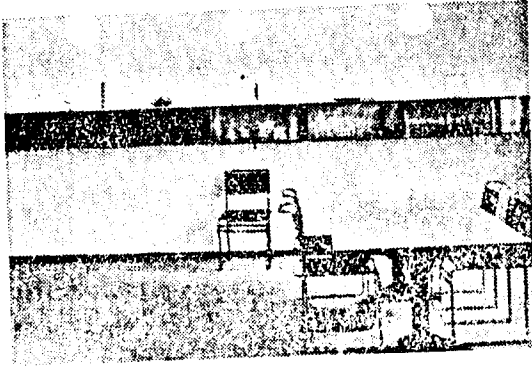


Fig. 6

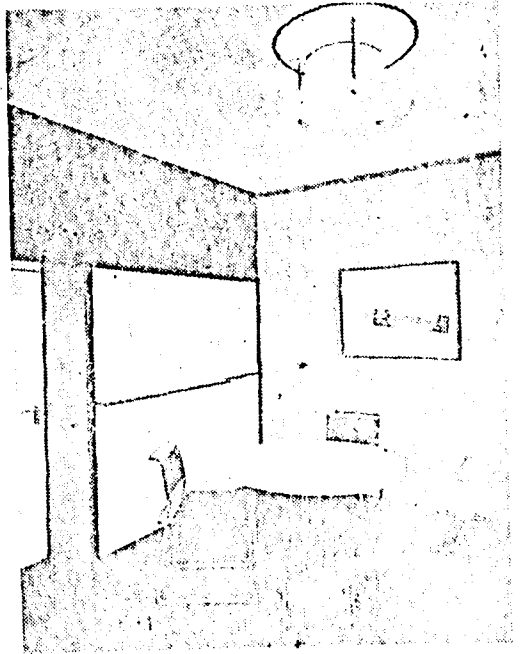
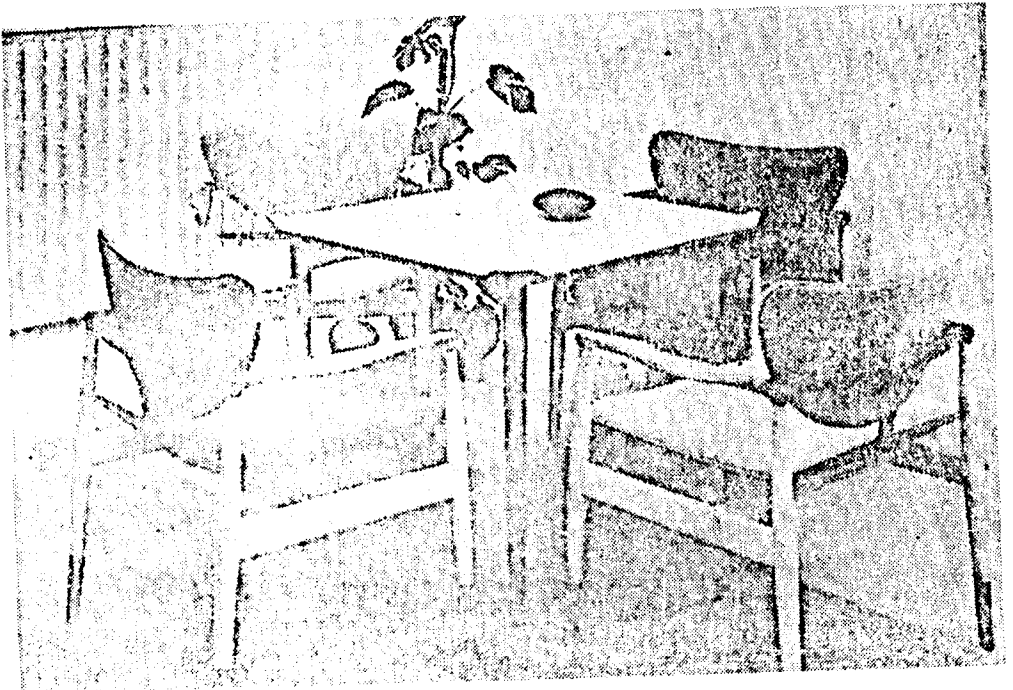


Fig. 7



Breuer designed a famous dining room in Berlin, 1927. The luxury of asceticism is well expressed in it. The tubular steel chairs with simple and neat but precise shapes display the most economic form. The design of the tubular steel chairs is perfectly harmonized with the narrow band of the wall cabinet, above which three spherical lamps are symmetrically arranged. The Fig. 6⁹⁾ is one of the best examples of an abstract composition in circles and rectangles shorn of all non-functional elements of associative fragments. Thus Breuer's design of the chair is indispensable for a successful interior designs.

C. Solid Wood by Finn Juhl: Finn Juhl was a Finnish designer of the solid wood walnut base chair. His designed chair was manufactured by the Baker Furniture Company. The designer fully exploited the characteristics of the walnut wood. The grain of wood is exhibited by cutting cross section in various ways though the fibers. The arrangement of the grain is different and distinctive in every wood. In other word, the walnut wood present different appearance according to (1) botanical variety, (2) method of cutting the log, (3) and part of the tree from which it is cut.

Most people are used to the solid wood furniture for a long time. The users are well satisfied with the accustomed wood furniture because they know the whole (inside) wood is the same as the surface. Second, the edges to chair seats, do not expose the layer like plywood. Third, the wood can be turned or carved. Fourth, the surface can be planned when it is damaged and it can be refinished by sanding without damaging the inside. Fifth, the surface cannot loosen or peel off. Sixth, when the solid wood is exposed to weather, its grain pattern stands out more clearly. Seventh, when the pith in the wood is worn off and washed away the patterns stand in relief. The color also changes. Finally, the walnut wood is different from other solid wood; besides it a general qualities of other wood, it is much harder and prettier.⁹⁾

Juhl well exploited the speciality of walnut wood. The chairs designed by Juhl in the interior (Fig.7)¹⁰⁾ gives warm, soft, and comfortable feelings as everybody is accustomed to it. A total attractive impression and comfortness is created through his graceful design and sensitive selection and comfortness. Thus Juhl's design of the walnut chairs is very successful in the interior.

D. Plastic Chair by Eero Saarinen: Eero Saarinen, the designer of the plastic pedestal chair, was born in 1910 in Finland, and became an American in 1923. The

Fig. 8

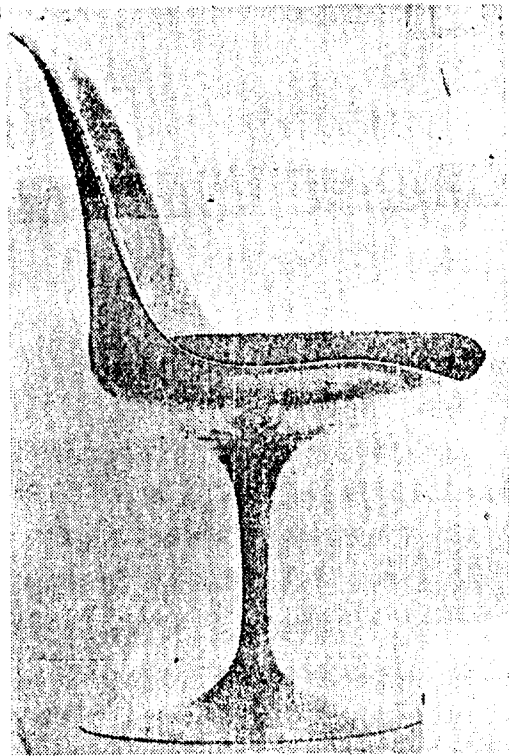
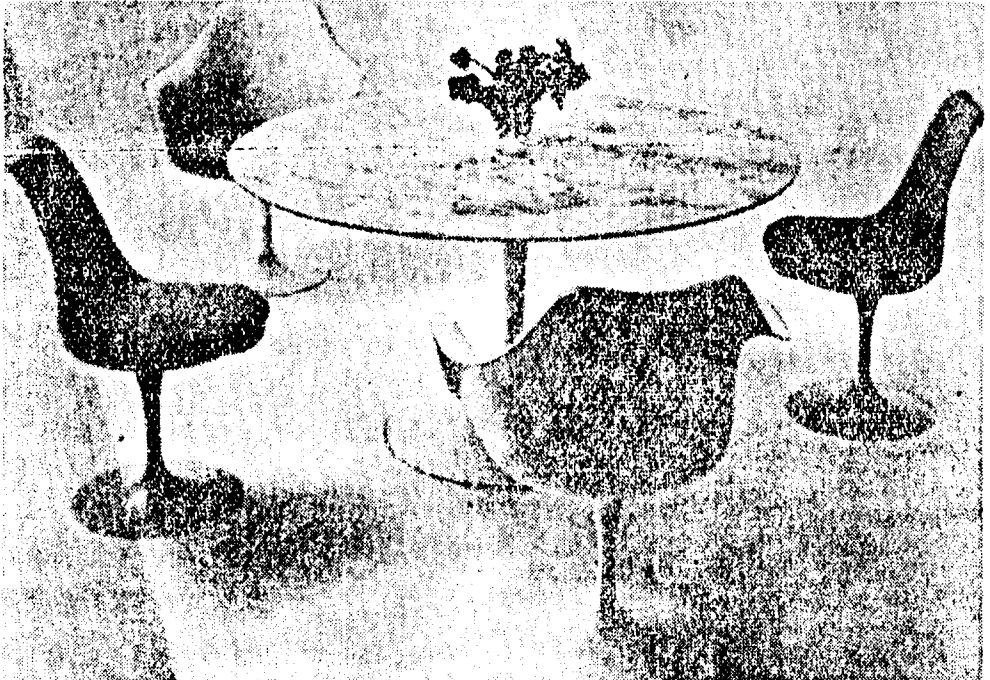


Fig. 9



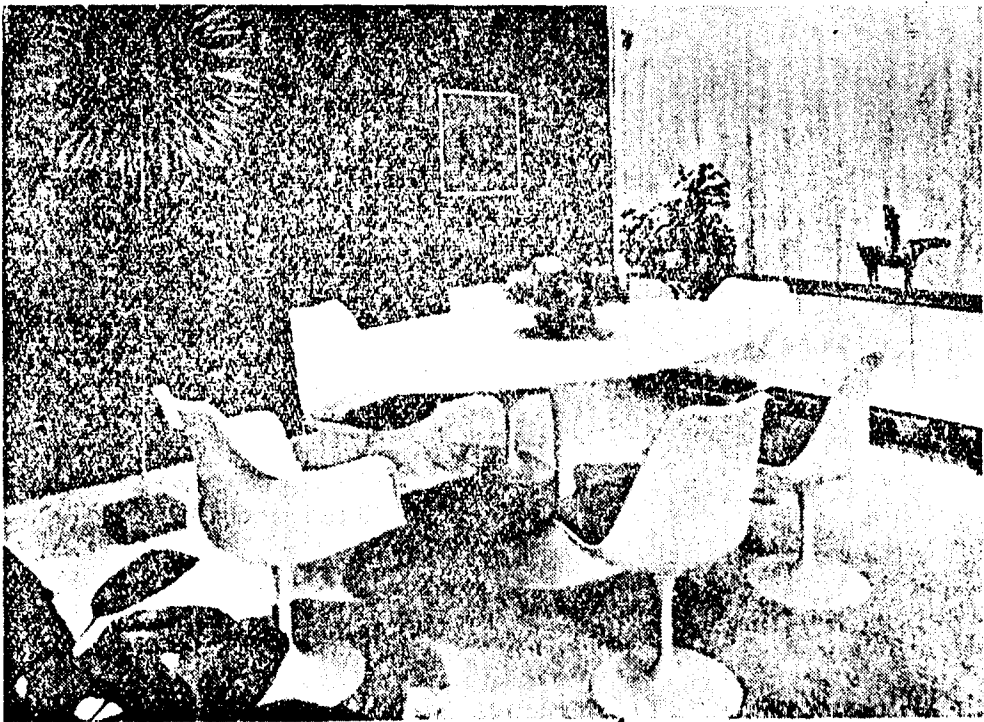
plastic pedestol chair was designed in 1957.

The plastic is a totally new vocabulary in furniture design and is more striking the use of molded plastic for chairs in contemporary time. Plastic is thin and light-weight, but surprisingly strong, and yet slightly resilient. It can be reinforced with fiberglass and molded so that the seat, back, and arms of a chair are made of one continuous piece. It is not so comfortable as wood, but it gives much warmer and pleasanter to touch than metal. The possibilities of infinite shape of molded plastic is the most important.

Eero Saarinen designed in the flowing shapes the white plastic and cast aluminum pedestol chairs in the more conventional rectangular forms as shown in Fig. 8¹¹⁾ Many consumers and manufacturers conservatively and gradually start to use plastic pedestol chairs because they are entirely new and unfamiliar. However, the designer expected to explore the possibilities because of its inevitable use in other furniture.

Many people unwillingly accept the newly designed plastic chairs but they have had enormous impact on homes. in Fig 9¹²⁾ and 10¹³⁾ the chairs designed by Saarinen are one piece of plastic. Its resilience gives the users more comfortness and free

Fig. 10



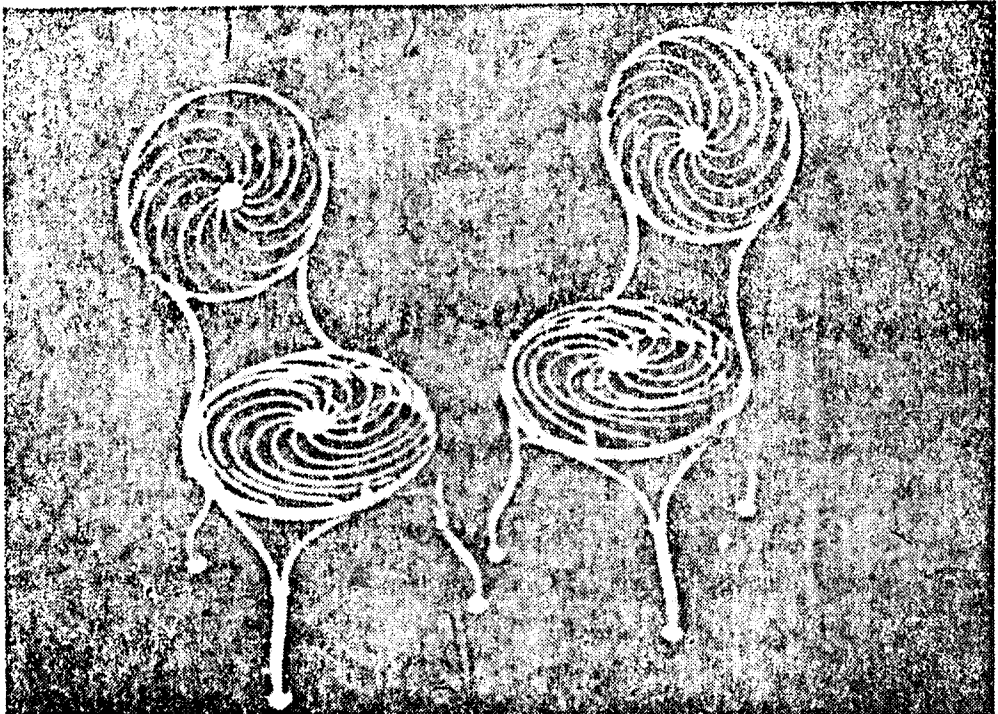
movement on the chairs than any other material chairs. Plenty of choices of color arrangement is also exploited by the designer. The plastic chairs with curves well fit to a round table in a dining room. From the interior designers' view point Saarinen's design is successful as artistic, however, for many conservative unaccustomed users may feel strange. Therefore it may fit to the office interiors before it becomes popular chair in general homes.

II. THE CHAIRS BEFORE THE SECOND WORLD WAR

A. Metal Chair: The garden chair was designed by Messrs Barnard, Bishop and Barnard of Norwich, England. The enthusiasm for metal furniture appeared as early as 1833, but the First metal chair of him was made at latest by 1880.

The iron furniture has one great advantage because of the method of casting which could not be used for other material. The student of the iron chair design had developed cast iron chairs in the nineteenth Century. Thus garden chairs were produced in great quantities throughout the whole period, and the larger iron foundries such

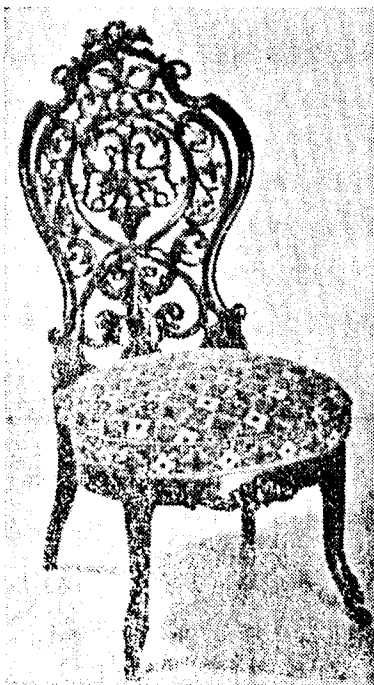
Fig. 11



as the Carron Company were established. On the other hand, artistic cast iron was also developed as a by-product of the wire work, sometimes gilt.

The designers of metal chairs exploited the cast iron method and produced the most interesting and unusual designs of lightness and elegance. They developed various types of metal chairs as shown Fig. 11.¹⁴⁾

Fig. 12



B. Solid Wood Chair: The use of the solid wood chairs and the design of them had been developed throughout much longer period than any other material chairs or other designs. One of the best example was illustrated in the rose wood and black walnut chair making of John Belter of New York (1850—1860)/and his colleagues. Belter showed an excellent example of the possibilities of a skillful use of laminated techniques in solid wood chair designs as shown in Fig. 12.¹⁵⁾

CONCLUSION

Through this brief research, several facts are found as follows: The human designs for chairs have been developed for a long time. The development of chair designs was influenced by the development of architectures, newly invented materials by science and technology, and human skills and techniques. Especially those developments can be differentiated by a line drawn between the pre-World War I and the post-World War I. Before World War I, the line of the chairs was extremely complicated according to the interior of the old architectures. After World War I, the line of chair designs becomes much simpler and more sensitive according to the interiors in the newly developed architectures, and the new materials which are fit to new designs. On the other hand, in the pre-World War I period, the designers made chairs beautiful for beauty sake without much consideration of the interior of the architectures but in the post-World War I period, designed chairs beautiful and harmonized under the consideration of the

interior of the new architectures

FOOTNOTES

1. Robert Gillam Scott, Design Fundamentals, New York:MaGraw Hill, 1951. p. 51.
2. James Ford, Design of Modern Interiors, New York: Architectural Book Hasting, 1947. p. 116.
3. Scott, loc. cit., p. 51.
4. Meyric R. Rogers, American Interior Design; the Traditions and Development of Domestic Design from Colonial Times to the Present, New York: Bonanza Books, 1947. p. 193.
5. The Architectural Record.(September, 1930), p. 210.
6. Whiton, loc. cit. p. 419.
7. The Architectural Record, loc. cit., p. 210.
8. Rogers, loc. cit., p. 176.
9. Ray Faulkner, and Saran Faulkner, Inside Today's Home, New York: Holt Rinehart and Winston, 1967. p. 157.
10. William James Hennessey, Modern Furnishings for the Home, New York:Reinhold, 1952~1956, Vol. 2. p. 28.
11. Aline B. Saarinen(ed.) Eero Saarinen on his work;a Selection of Building Dating from 1947 to 1964 with Statement. New Haven:Yale University Press, 1968. p. 59.
12. Gerd Hatje(ed) New Furniture. New York: Wittenborn, 1958. p. 31.
13. Faulkner, loc. cit., p. 185.
14. Elizabeth Aslin, Nineteenth Century English Furniture, New York: T. Yoseloff, 1962, p. 28.
15. Rogers, loc. cit., p. 144 and p. 153.

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