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EXH. 314

SEE LOAN RECEIPTS  
VOL. XVI

NEW FURNITURE DESIGNED BY CHARLES EAMES: March - April 1946

Left wall—entrance to exhibition  
All birch chair hanging from wall

(wall lettering)

NEW FURNITURE

DESIGNED BY CHARLES EAMES

PRODUCED BY THE EVANS PRODUCTS COMPANY

(wall lettering)

THE TECHNIQUES OF WARTIME PRODUCTION  
GIVE NEW BEAUTY AND COMFORT TO  
EVERYDAY LIVING

Label:

This furniture is not for sale.

Information about the sale of pieces displayed in this exhibition can be secured only by writing to the Evans Products Company, Detroit, Michigan.

Molded plywood seats, backs, and frames of different woods and colors suspended in front of a photomontage by Herbert Matter.

Label:

The montage construction is by Herbert Matter

Right side; Hall space

walnut desk; molded wood legs detachable  
fabric upholstered chair; walnut frame

Label:

A walnut table and chair show Eames' design in its most dignified, direct form. Seat and back are plywood shells curved enough to support the human form comfortably, their ample width emphasizing this comfort to the eye. Flexible resilient rubber mounts are bonded between these shells and the sturdy bent plywood chair frame. All bonds between these materials are heat-set by radio waves; the synthetic resin is actually stronger than the wood and rubber it unites. Rubber mounts provide a new comfort not before available in furniture, for the shells flex with a certain reassuring resistance to every

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shift of body weight. Besides thus allowing for posture adjustment, the rubber shock mounts (borrowed from engine mounts in industry) have a forthright neat look unlike the intricate dirt-catching springs and swivels that until now have provided the greatest comfort in chairs for table and desk use.

Label:

The table itself has a simplicity of proportion and line that comes only in mature designs, well worked through. Light shell legs come apart from a strongly framed top; these elements are united in aluminum joints of precision and firmness.

Storage and filing cabinets that may be needed with such a desk group can be assembled from the unit cases shown in an adjacent room.

Comfort and durability are notable in these key pieces of furniture, but they also embody exceptional clarity, integrity, and harmony of design.

coffee table, elm; round molded top; metal legs detachable  
red impregnated ash chair; metal frame  
blue upholstered tilt-back chair; red metal frame

Label:

Low chairs and a low coffee table invite relaxation. Upholstered seats and backs, the added color and sheen of metal, the contrasting wood veneers all are discrete enrichments of essentially simple designs. These pieces are comfortable to use, and their light weight and permanent surfaces contribute to the decencies of housekeeping as well as to the elegance of their design.

dining table; black plastic top; metal legs collapsible  
red impregnated chair; molded wood seat and back; metal frame  
brown wood chair; molded seat and back; metal frame  
red impregnated chair; molded wood seat and back, metal frame  
black chair; molded wood seat and back; metal frame

Label:

Metal frames and brilliant colors make this group specially suited to informal and outdoor uses. Yet so closely is each of these pieces related to the other designs of Eames' furniture that a different note may be struck simply by varying the groupings. The plywood is impreg-

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nated with color that will not fade or discolor onto other surfaces that touch it. Nothing in these pieces can be damaged in ordinary usage, and they can be left outdoors the year round, to be hosed down as necessary. The hanging chair shows the construction.

wall ending this section

panel with sample shock mounts

Label:

#### HAND TESTS FOR SHOCK MOUNTS

Here you can test the shock mount used in Eames furniture by hand. The mount is described on a label for the adjacent rotary blade testing board.

rotating blade test for shock mounts

Label:

So long as you keep pressing, the blade will rotate, subjecting the shock mount used in the construction of Eames furniture to three different and typical strains. The shock mount consists of a block of rubber bonded by radio-cured synthetic resin to wood and metal. It is joined to wood where it remains fixed and to metal where a detachable joint to some other element of the furniture is desired. The shock mount was originally developed to perfect the installation of heavy, vibrating engines. The unusual strength, flexibility and resilience of this mount have not before been applied to the daily needs of human beings.

children's furniture hanging on the wall  
table, chairs (2), stools (3) molded plywood, color impregnated

Label:

On the wall above is a set of children's furniture. Unusual lightness, strength and clear color suit these pieces to the imaginative experiments that children love and learn from. The simple construction relies on the strength of sheet material bent into the third dimension. Guided by a creative grasp of design, processes that once contributed to a smooth bomb run, here are used directly to stimulate healthy growth and life.

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tumbling drum; chair with molded seat, back and frame

Label:

THE DRUM WILL ROTATE AS LONG AS YOU PRESS IT

Light tough materials, resilient rubber shock-mounts between parts, durable synthetic resin glue set by radio waves combine to make this furniture stronger than similar structures have ever been before. Techniques that answer the complex, precise demands of the aircraft industry are put to the service of everyone's daily needs. The shocks and strains put on the chair by the rotation of the drum naturally exceed the wear and tear of active daily use.

wall between exit and entrance of small gallery

Wall lettering

1940-41  
ORGANIC DESIGN

Label: (blown up photostat)

In the Organic Design competition conducted by the Museum of Modern Art in 1940-41, Charles Eames in collaboration with Eero Saarinen won two first prizes, one for chairs and one for case pieces. Their winning drawings are shown here. Under the terms of the competition, these prize designs were manufactured and marketed. Continued production of these pieces was blocked by the war. In these drawings are shown many of the design principles for which economical mass production techniques have been developed and applied in the present group. The Organic Design furniture introduced such innovations as molded wood shells for chairs, the use of benches under case pieces, and the first application of a synthetic resin bond, Cycle-weld, between wood, metal, and rubber.

Wall lettering

1942-44  
WARTIME DEVELOPEMNT

Label:

Eames continued on his own to explore the unsolved problems and succeeded in developing an economical method for three-

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dimensional molding of plywood in mass production. This he applied to the design of leg splints for the Navy, which as in the case of the chairs, was a problem of making plywood forms to fit the human body. This led to a connection with the Evans Products Co. of Detroit, who formed a Molded Plywood Division under Eames. This factory and experimental laboratory expanded its activity to produce many additional items for the armed forces, such as glider and airplane parts.

Organic Design panels:

Side Chair  
 Relaxation  
 Conversation  
 Lounging Chair  
 Easy Chair  
 Units: full construction details  
 Small Units  
 Drawing of unit combinations

Two molded plywood splints  
 Photograph of splint being used

Small Gallery--left wall outside model room

three photographs by Herbert Matter, negative numbers #947; #943; #929

Label:

Cabinets for a variety of purposes, record storage, radio, phonograph, rest on a succession of low benches. The units blend into a low, long group that satisfies the desire for order and rhythm through its repetition of sizes. The handles are extruded aluminum. The very thin sliding doors of the double size cabinet are molded into a pattern of elevated discs for rigidity. The benches come in various lengths.

The chairs yield flexibly to the change of body position. Dull repetition is avoided through a variety of textures, grained wood, leather pads, cowhide upholstery, and impregnated colors. Low heights and extra wide seats and backs provide for relaxation.

Label:

Lounge chairs, occasional tables, storage cabinets, and dining furniture can be grouped as needed. The variety of expression that this permits is augmented by a wide choice of chair frames, seats and backs, and woods or upholstery materials. This great range of outlines, surfaces,

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and colors leaves everyone free to combine the pieces in an entirely personal manner; an harmonious result is assured by the special vigor and clarity of designs.

The upholstered chairs gain added comfort with a layer of foam rubber under covers electrically bonded to the plywood shells. This system is perfect for almost permanent covering materials such as hides, as the foam rubber and resin bond will not deteriorate. More delicate upholstery fabrics will also be used, requiring cleaning and replacement; a snap-strip will be bonded to the seats and backs to which the fabric will be snapped.

The cabinets are birch plywood box-jointed, a decorative and forthright detail along the corner edges. Unusually shallow cabinets and drawers are the result of careful planning for household needs. The cabinets rest on low benches, assuring a level base for the units. Equally important, the cabinets maintain the intimate natural elegance that is characteristic of this group of designs.

Small Gallery -- Model room

Living room group

yellow impregnated chair; molded wood seat and back; metal frame; 3 legs  
 unit cases; sliding doors; record storage cabinets; drawer units; radio unit  
 unit benches  
 side chair; leather upholstered; molded wood seat, back, and frame  
 coffee table (a) black top; molded wood legs  
 coffee table (b) box jointed; molded wood legs  
 side chair, natural hide upholstered; wood seat, back, and frame  
 side chair, molded wood seat, back, and frame

Dining group (ash)

arm chair, molded wood shells; molded wood frame  
 3 dining chairs, molded wood seats, backs, and frames; black lacquer frames  
 dining table; molded wood legs

Small Gallery -- demonstration pieces

tilt-back chair; molded wood seat and back; metal frame  
 occasional table; bent top; metal legs

Label:

A thin rectangular plywood sheet with two rim-like sides bent upwards, forms the top of an occasional table. Its three-legged steel rod frame corresponds to the spidery elegance of the chairs.

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The tilt-back chair has its legs arranged in such a way that it allows two different sitting positions.

side chair; molded wood seat, back, and frame  
three-legged chair, one front leg; metal frame  
3 side chairs; molded wood seats, backs, and frames  
arm chair; molded wood shells shock mounted to molded wood frame