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Sjöström "New Life" Library Furniture

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by S. S. Coston

Vice President, John E. Sjöström Co., Philadelphia, Pa.

[This article was written at the request of the editor and is presented in this series as of value to the profession and not necessarily with the endorsement of the University of Illinois Library School. Consideration will be gladly given to comparable manuscripts from any other commercial firm. - Ed.]

In 1893, a craftsman named John E. Sjöström opened a small woodworking shop which he called the John E. Sjöström Company. Years later, he put into words the policy upon which the success of his business was based. "...we must never, for a moment, forget that the single, most important factor in operating a successful business is the customer. In spite of any claims we may make, he alone is the final judge of our product's worth. By maintaining sufficiently high standards to merit his continued patronage and good-will, we assure our success. That is why, over the years, in good times and in bad, we have never compromised with quality. Nor can we ever -- and expect to remain long in business." Before his death 44 years after founding his company, Mr. Sjöström saw this policy turn a modest shop into the largest and most modern woodworking plant in the city of Philadelphia.

John E. Sjöström Company (pronounced shos'trom) started to make library furniture in a small way about 1900, but it was around 1925 before it was manufactured extensively. For years our library installations were primarily in the East, but in the two years' time that we have been advertising in national publications, we have expanded our activities considerably and now have installations in many section of the country. Until the war, when the manufacture of library furniture was temporarily discontinued, our furniture was typical of other manufacturers' and the style was more or less traditional. However, the growing acceptance of modern teaching methods which stress the use of libraries as an active part of the educational system changed the function of the library. Instead of a mere repository for books, the library has become a social force, a major factor in the cultural growth and development of the nation. In line with this trend, we recognized the fact that to be effective, a modern school program demands well-equipped library centers. We felt that furniture could be made to do a better job in the library.

Breaking with tradition is never easy, and our case was no exception. Before our new library furniture reached the drawing board stage, numerous interviews and conferences were held with librarians, educators, and architects. We wanted our library furniture to meet the requirements of the people who would use it, and we found that librarians were most cooperative in pointing out not only the shortcomings of conventional library furniture but also the good features. Armed with these facts and with a desire to apply present-day principles of design, our engineers and designers went to work to produce "New Life" library furniture. It represented the application of present day principles of functional design, and a chance remark, "It adds new life to my library", gave it the name which we use in

our advertising. We took each item generally used in the library - the table, chair, dictionary stand, charging desk, shelving, and the rest - tried to forget all we knew, and considered its function. In other words, we started from scratch to build items that would have clean design, give the utmost in service, and yet be of good construction and as economical as possible.

While all of our furniture has the same overall design, we changed the style of some pieces to obtain an informal effect. The design of our furniture is modern, but not extreme. The lines are smooth and graceful, giving the effect of warmth and informality while avoiding the bare, stark appearance of completely functional furniture. It is a clean-lined, functional design which blends well with almost any type of interior. The ornamentation of conventional style furniture has been eliminated, along with dust-collecting mouldings. As a result, maintenance costs are reduced, since the furniture is easier to clean and stays clean longer. We didn't want to build just good furniture. Our aim was to create a tool for the librarian which would supplement her efforts and work for her. We wanted to transform the library into an informal, friendly place where the public or students would want to come. This seemed to be the desire of most library people to whom we talked.

### Library Items

The central unit of any library is the charging desk. This is the nerve center of the library's activities and as such must be carefully planned. The librarian's desk is an office in itself, and the necessary cards and files must be within fingertip reach. Since requirements vary from one library to another, it is impossible and undesirable to manufacture a standard, inflexible charging desk, so we make our service or charging desk sectional. The sectional design provides the necessary flexibility because the separate units can be arranged to suit the librarian's needs and personal tastes. These desks are designed to eliminate needless effort on the part of the librarian. To meet varied personal requirements, we designed six different charging desk units plus corner sections. The corner sections are built with a locked cupboard for storage of posters or other material. These units can be arranged in any combination and may be rearranged at any time or other units added in the future, should they be needed. Charging desk units are, as a rule, built for a standing height of 39 inches, but sections can be made for sitting height when necessary. The tops of the desks are covered with the best grade of stain-resisting linoleum. This assures a durable and serviceable working surface for the librarian. Drawers are equipped with metal extension slides or keels, depending on their use. The base recommended is a sanitary leg type with adjustable aluminum caps at the floor. This type of support makes it possible to move, rearrange, or add units without difficulty if a change becomes necessary after the original installation. The closed base type is satisfactory in some instances and can be furnished, but it does not afford the flexibility of the sanitary leg type.

In planning the physical equipment required in a library, current shelving needs should be studied carefully and allowance made for future expansion. Since the function of the library is changing rapidly, flexibility in shelving is necessary and desirable. Shelving built into the wall is inflexible, and therefore not recommended. Book shelving should be in movable units. Otherwise any rearrangement of the library, regardless of its functional necessity, will not be possible. Shelving should also be sectional to permit rearrangement and to provide for future additions. Sectional shelving is flexible and economical, since matching units can be added at a later date. To accommodate different size books, shelves should be adjustable in height. To make this adjustment feature as simple and convenient as possible, we use a recessed metal standard with metal clips, set in flush with the underside of the shelf. This arrangement provides permanent, accurate adjustment on half-inch centers. The spaces are numbered for ease in properly locating each clip. The bottom shelf is sloped to the rear so book titles on the lower shelf may be read easily. A skid

strip is inserted in the sloped shelf to prevent books from sliding back.

When double-faced shelving is required, we recommend for complete flexibility that two single shelving sections be fastened together back to back. With our shelving, this is easily accomplished by the use of splines and angles at the top and bottom of the unit, to which sway-braces are bolted. The shelving thus gives the effect of actually having been built double, but with this construction the units may again be used singly later if desired. Shelving, either single or double face, can be furnished with plywood backs  $3/8$ " thick, finished to match the woodwork. Backs are not generally necessary, but sometimes wall conditions or placement of shelving makes them desirable. They will add to the cost, and are furnished only when called for.

Library tables and chairs should be sturdy and comfortable and blend with the other library equipment in design and finish. In line with the functional trend, our table legs are set in from the edge of the table to avoid scuffing and unnecessary wear. The set-in position does not effect seating space. We regularly furnish spring-cushioned glides for chair and table legs. The glides are adjustable on the table legs, permitting instant leveling should the floor be uneven. In addition, the cushioned glides absorb shock, giving the tables and chairs longer life. Tables, along with the other physical equipment in libraries, have undergone functional changes. The standard rectangular library table still has its place, but its importance has declined somewhat with the advent of specialized, functional pieces. Recognizing the fact that current teaching methods stress the use of libraries for reference work, we have designed equipment for both group and individual study. In addition to the rectangular and round tables, we now have study tables, carrels, listening tables, film projector tables, and slope-top tables.

The library chair is another item which requires careful consideration when equipping a library, for it receives hard use. For this reason, chairs must be selected for good construction as well as comfort and design. These depend upon three major features - the selection and preparation of the lumber, the quality of the craftsmanship as it pertains to joining and assembling, finishing, etc., and the correct sitting proportions to provide lasting comfort. Sjöström library chairs are available in three different styles, each of which is made in five types. One style has four form-fitting back rails, another has one wide back rail, and the third has three back rails. Both the latter styles have a book rack under the seat and are available in juvenile sizes.

We know, from years of experience, that the pitch of the seat, from front to back, must be in a certain relation to the pitch of the back to provide the greatest comfort. We also know that certain standardized seat heights are essential to relieve pressure on the underside of the legs of the person who is using the chair. For instance, an 18" seat height is the standard for adults, while 'teen-agers and juniors require lower seat heights, according to the age bracket. In construction, the seat is comfortably scooped. All curved members in our chairs are steam-bent, especially the back posts and the cross members in the back. This bending operation eliminates end-grain, which not only provides greater strength but also is helpful in securing a uniform color of finish. On chairs having arm rests, the rests are solidly anchored to the back posts and arm pillars. On swivel chairs, the wood base feet are securely fitted to the combination wood and metal hub of the swivel unit with heavy screws. On low swivel chairs, the base feet are provided with moulded plastic scuff plates and soft-tread, ball-bearing casters. On the high swivel chairs, the base feet have a circular foot rest securely fastened at the proper height. The seats of all swivel chairs are equipped with a tongued rubber bumper on the front edge and carried well around the front corners. All chair styles are available with upholstered backs at additional cost.

The over-all appearance of a library is detracted from unless the design pattern is carried through on every piece of furniture. This must be kept in mind when planning the purchase of library furniture. In selecting a particular design, the librarian should make sure that the company supplying the shelving, charging unit, tables and chairs, can also furnish auxiliary units to match. All libraries will not require auxiliary equipment, such as newspaper and magazine racks, atlas cases, dictionary stands, display racks, and bulletin boards, at the start. However, if and when future additions must be made, securing auxiliary units to match the original installation might well become a difficult and costly problem. In our "New Life" line of library furniture, free standing items such as newspaper and magazine racks, display racks, atlas cases, card file units, and dictionary stands, are all constructed with turned, splayed legs to obtain an informal effect. This construction is very sturdy because actually, the items are more firmly set than if the legs were straight. Splayed legs are wedged into a plywood block at the top, and the block in turn is fastened to the bottom of the unit with four bolts, providing a rigid connection. However, since some may prefer straight legs, these units are also manufactured in this style.

An integral and vital part of the record keeping and cross indexing function of libraries is the card catalog. The cases of drawers should be sectional in design to permit rearrangement or expansion. Card catalog drawers must be carefully built, with close attention to the inside size of trays so that cards can be removed and inserted without difficulty. For ease in handling, the trays should be as light as possible and the snap-in type of rod should be used.

The advisor's desk, charge truck, and book truck were designed to eliminate needless effort on the part of the librarian. The desk has two reference shelves, a drawer with trays for card filing, a drawer equipped with adjustable steel rods for accommodating letter or legal size hanging folders, knee space drawer with pen and pencil tray, a box drawer, and an open book compartment. The charging truck is equipped with castors for ease in moving from place to place, and has a removable cover for the tray compartment and two drop leaf shelves at the sides. The tray compartment holds removable card trays. Book trucks are well constructed and reinforced since they receive hard use. Castors are smooth and quiet in operation, and rubber bumpers can be provided on the vertical corners to prevent marring the furniture.

#### What To Look For In Well-Designed And Constructed Furniture

Manufacturing facilities, materials, and trained personnel are the three most important factors to be considered when purchasing furniture. Since our company started as a cabinet making firm, our craftsmen have had years of experience in woodworking and take true craftsmen's pride in creating a quality product. Designers and engineers play an important role in creating furniture which is not only efficient, practical, and serviceable, but also graceful and pleasing to the eye. Materials to a large extent determine the quality of a product. In the case of library furniture, lumber must be top grade and thoroughly seasoned. Hardware must be durable without detracting from the appearance of the product. Finishes must be applied with care and quality materials used, since a piece of furniture is no better than the finish on it. To manufacture standard as well as special furniture items successfully, a plant must have modern and adequate facilities. When all these factors are blended, a quality product is assured.

Lumber used in the manufacture of library furniture must, of course, be thoroughly seasoned. The lumber which we use in "New Life" library furniture is air dried on sticks for 12 to 18 months to a moisture content of 17% to 20% or less. Following the air drying process, the lumber is kiln dried to reduce moisture content to 4-1/2%

to 5%. The lumber is then allowed to cool and temper for approximately 30 days before milling. Since we use several million board feet of lumber each year, treating lumber to insure proper moisture control is a major operation. The woods most generally used for library furniture today are maple, birch, and occasionally oak. Maple and birch are close-grain hard woods that are of equal quality. Both make up nicely in natural and stained finishes. We prefer maple and use it regularly, since it gives a more uniform finish. The heart and sapwood of birch produce a light-and-dark effect in either natural or light stained finish. It is impossible to select birch for uniformity of color, as the heart and sapwood are often found in the same board. Both of these two lumbers are well suited for a painted or enamel finish. However, our standard for this type of finish is birch. Until light finishes became the vogue, quartered oak was the most popular lumber for library furniture. It is now gradually coming back with the development of more interesting finishes, particularly the silver grays and lime oak colors which are effective and pleasing. Designers have also found that oak makes up as well in modern styling as it did in the old conventional designs. Today we generally use plain white oak or combed grain oak. The old type of quartered oak with the large flake figure is no longer suitable for our present-day designs. Oak is also a hard wood, and its open grain permits the use of the new silver gray finishes. For furniture interiors, such as drawer bodies, framing and bracing, we use hard woods, but no selection is made for color and graining. Shelves are generally of poplar with the front edge lipped with the same wood used for exterior surfaces in order to keep the shelves as light as possible.

Hardware, while it seems an incidental item, is important in adding the finishing touch to furniture. In this respect, we are very particular in the selection of hardware, making sure it harmonizes with the design. In fact, we have designed special pieces to provide the utmost in convenience, as most hardware in the library is used on catalog drawers and the charging desk units which are in constant use. Our hardware is of solid bronze with a satin bronze finish. However, other finishes are available on special order.

Finishing materials and the finishing process should have most careful attention. Finishes today tend to be light, bringing out the beauty of the wood and making the furniture more cheerful and serviceable. The finishes are dull rather than glossy, reducing eye strain and providing for proper light reflection. A light stain finish is recommended since this type of finish seems to give more character to the wood. Natural finishes are sometimes used, but we have found that a natural finish tends to lose its interest after a period of time. It is the finish on furniture which takes the abuse. It must be hard enough to withstand abrasion and at the same time be sufficiently flexible to take bumps and knocks without cracking or chipping. The finish must withstand hot and cold water and also cleaning solutions which contain alkalis and caustics. Unless the finish is applied with care and quality materials used, the legs of tables and similar items will look worn in a short time.

On close grain woods such as maple or birch, a stain is first applied to obtain the proper color. There are water, oil, and spirit stains, but we use water stains wherever possible. Water stains hold the color, while the others have a tendency to fade in time. On open grain woods such as oak, a filler is used, not only to obtain the color but also to fill in the grain. For silver grays, a thin coat of shellac is used over a stain. A light filler is then wiped on to give the silver effect. Silver gray finishes are slightly more costly because of the two extra operations involved, but this type of finish often adds greatly to the appearance of oak furniture. After staining or filling, the remaining operations are the same for all lumbers. First a sealer is applied, followed by two coats of varnish or lacquer. These are well sanded between coats. The final coat gives a dull finish which is easy to keep clean and aids in reducing eye strain.

## Construction

Our biggest change in construction has been in the use of solid lumber wherever possible in place of veneers or plywood. The use of plywood for table tops, end of racks, and similar places has been traditional. However numerous experiments and tests have proven to us that the change to solid construction has resulted in better and more durable furniture. The wear on table tops and similar surfaces in the library is severe. For this reason, these parts must be built to stand years of continual wear. This construction also has a decided advantage in future years if refinishing should become necessary. There is a danger of sanding through veneers when removing the old finish, but since solid lumber is the same all the way through, it is very easy to remove deep scratches and similar marks. The secret of solid construction is in the pre-treatment of the lumber and the glueing. For glueing, we use a high-frequency electronic edge-bonding process which welds the separate pieces into one component unit. The adhesive used in this process is a urea resin which resists heat, cold, high and low humidity and various combinations of these conditions, plus resistance to shock. This process gives the durability we feel is essential in good library furniture. Solid lumber will expand and contract with changes in atmospheric conditions, but with proper treatment and construction, the furniture is not affected. For example, tops of tables are fastened to the table base with heavy metal clips in such a way as to permit the top to "float", and at the same time hold the top securely in place. In those cases where a part must remain fixed as to size, e.g., the front and end panels of charging desk units, plywood is used. However, since these parts are in a vertical position, they are not subject to as much wear as tops.

While some experience in installation is helpful, our library furniture is so constructed that it can, if necessary, be installed by men without previous library installation experience. All library items are of the knocked down type construction, and the various units, such as the shelving, need only be bolted together and set in place. Before shipment, all items are assembled at the factory, then the legs or similar parts are removed to reduce shipping costs. The charging desk is shipped in separate sections which are bolted to one another. If the open leg base is used, the legs are fitted with adjusters at the bottom so that the desk can be adjusted to the floor level without difficulty. The closed base type charging desk requires more time in installing, but offers no serious problem. In the assembly of a table, the legs are securely fastened in place by means of two bolts at each leg. The brace which ties the corner together and holds the leg is of heavy ribbed steel and is securely fastened to the side rails of aprons with three screws at each end. In addition to the screws, the ends of the brace are bent in, engaging in a vertical groove of the rail, which keeps the brace in a fixed position. A small but very important detail in producing top quality furniture is the rounding of all edges and corners. This rounding protects by preventing chipping, and permits the furniture to give long service without losing or marring its finish.

## Service and Prices

When planning the purchase of library furniture, it is wise to take advantage of the services offered by most library furniture manufacturers. John E. Sjöström Company employs a full-time staff in its main office in Philadelphia, in addition to trained sales engineers throughout the United States, to assist librarians in the selection and planning of library equipment. This service is offered without obligation. If a problem is encountered which requires factory attention, it is sent to Philadelphia and handled by our planning department. Planning is important, and all factors such as current and future shelving needs and traffic flow patterns should be carefully considered. Drawing on our long experience from many installations, we

can often give suggestions to solve some problem or develop special items or designs. This service is, of course, on an advisory basis.

All our furniture is manufactured and shipped from our plant in Philadelphia. When an order is received, the furniture is taken from stock or manufactured if special items are required. The library equipment is then packed or placed on a padded van for delivery to destination. Sjöström furniture is fully guaranteed to be completely satisfactory. Our high standard of quality is maintained by careful inspection both during manufacture and before shipment. This high quality is the result of pride in workmanship, and an uncompromised policy of producing the best possible furniture while maintaining reasonable prices.

Prices of all commodities are variable these days, and the prices of library furniture are no exception. Furthermore it is not possible, within the limits of the space available here to list every single different piece of library furniture (with all the possible combinations of special features) we make and quote a current price for each. And in addition it is doubtful if one can secure a very satisfactory picture of a piece of library furniture from simply its name and dimensions; a copy of our Catalog L 50 on library furniture will be sent free upon request to the John E. Sjöström Co., Dept. L, 1715 No. Tenth St., Philadelphia 22, Pa. In the light of these cautions, there is given in Table 1 here the current (October 1950) prices of some of our most popular items; these prices are of course subject to change and do not include shipping charges from Philadelphia, sales taxes, or other such charges. (Table 1 appears on next page)

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Numbers in this series are issued at irregular intervals and no more often than monthly. Single copies of any issue are available free upon request; appropriate institutions wishing to receive a copy of all issues should so indicate in writing. The Occasional Papers will deal with some phase or other of librarianship, and will consist of manuscripts which are too long or too detailed for publication in a library periodical, or are of specialized or temporary interest. The submission of manuscripts for inclusion in this series is invited. Material from these papers may be reprinted or digested without prior consent, but it is requested that a copy of the reprint or digest be sent the editor. All communications should be addressed to Herbert Goldhor, Editor, Occasional Papers, University of Illinois Library School, Urbana, Illinois.

TABLE 1. PRICES OF SELECTED PIECES OF SJOSTROM "NEW LIFE" LIBRARY FURNITURE: OCT 1950

Item No.	Name of Item	Dimensions (width-depth-height)	Price	Weight (in lbs.)
110	Rectangular table	5' x 3'	\$ 90.00	150
112	Rectangular table	7 1/2' x 3'	130.00	250
114	Round table (round apron)	48" dia.	125.00	160
114A	Round table (square apron)	48" dia.	94.00	160
160	Armless reading chair		22.60	20
164	Armless reading chair		19.60	20
163	Armless reading chair		18.25	18
160A	Arm chair matching no. 160		28.20	30
162	High, swivel charging-desk chair		37.50	50
Wall shelving (starter and additional units):				
120-121	High shelving	3' x 8" x 6'10"	17.00(b)	40
122-123	High shelving	3' x 10" x 6'10"	20.00(b)	50
126-127	Medium-height shelving	3' x 8" x 5'0 1/2"	15.00(b)	30
128-129	Medium-height shelving	3' x 10" x 5'0 1/2"	17.50(b)	37
140-141	Counter-height shelving(a)	3' x 8" x 3'3"	12.00(b)	24
142-143	Counter-height shelving(a)	3' x 10" x 3'3"	14.00(b)	27
173	Book truck (without corner bumpers)	30" x 14" x 35"	65.00	100
175	Dictionary stand	22" x 16" x 44"	67.00	100
182	Librarian's desk	60" x 30" x 30"	275.00	300
191-15	15-drawer card catalog unit		195.75	150
191-30	30-drawer card catalog unit		334.75	250

## Typical charging desk arrangements:

Straight desk (3 units)	7'(c) x 4'6" x 39"	500(c)	500
L-shaped desk (5 units)	9'(c) x 4'6" x 39"	800(c)	750
U-shaped desk (7 units)	11'(c) x 4'6" x 39"	1100(c)	1000

(a) Can be furnished with book trough in top at an additional cost of approximately \$3.00 per lineal foot.

(b) Per lineal foot.

(c) Approximately.