

UNITS FOR LIVING (Multiple Use Furniture)

Fast increasing costs of different materials have on the one hand reduced the size of houses and on the other made it difficult to purchase different furniture items for different purposes e.g., chairs for sitting, cot for sleeping, table for eating and so on. Moreover, if these items are procured it becomes a difficult task to adjust them in a small house. With this twofold problem in mind Central Building Research Institute has developed low cost multiple-use furniture described as 'Units for Living.'

Using commonly available plywood, short-length small dimension timber and 1/2" dia. lightweight conduit pipe, 'Units for living' have been developed in three different designs. Length as well as width of these units is 60 cm and height 35 cm. These dimensions have been arrived at on the basis of anthropometric studies conducted at CBRI, norms laid down by ISI, sizes of available materials in the market and a system of dimensional coordination developed at this Institute. These units are so light in weight that ladies and children can easily carry them from one place to another. Cost of these units is about Rs. 30.00 per unit. Details of the three types of units are as follows :

Type-I

As shown in Fig. (1) and Photograph (1) this type has a plywood top mounted on a 2 cm × 5 cm size wooden frame and cross members. Legs are also of the same size of wood and are nailed to cross members. When these units are to be joined vertically, legs of one unit fit into the slots provided in the plywood top of the lower unit. To join horizontally slots are provided in the wooden frame and with the help of simple drawing board clips, these can be joined.

Type-II

As shown in Figure (2) and Photograph (2), this type does not require plywood. The top is made up of

2 cm × 2 cm size wooden strips nailed to the frame at a spacing of 2 cm. The frame consists of 2 cm × 5 cm wooden strips to which the legs are nailed with same size of wooden strips. These units can also be joined horizontally or vertically as in Type I.

Type-III

As shown in Figure (3) and Photograph (3) this type of unit has legs made up of 1/2" dia. lightweight conduit pipe. These pipes are bolted to the 2 cm × 5 cm wooden frame. The top is made up of plywood fixed to the frame. As in type (I) and (II) these units can also be joined horizontally and vertically for different activities.

With a set of six of such units different activities of the house can be performed as follows :

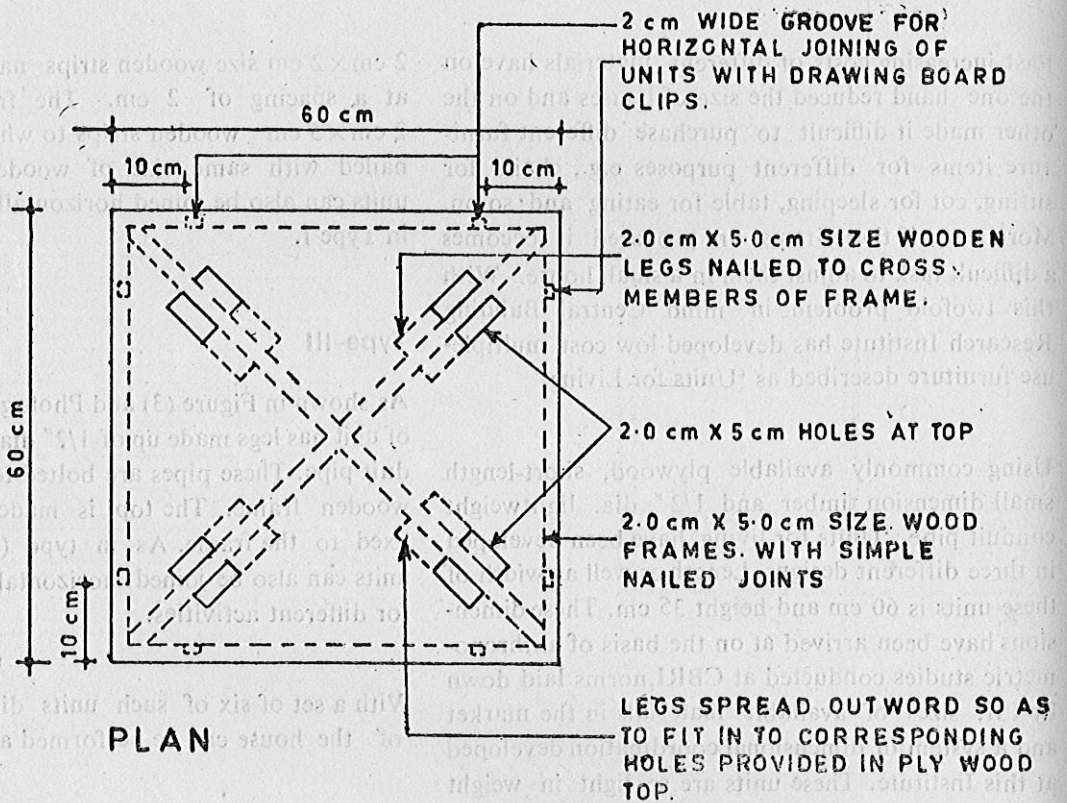
- (i) If one is sitting on floor, these units can be used for eating or reading or any other activity like using a sewing machine, etc. (Photograph 2).
- (ii) These units can be used for sitting as a chair. Being light in weight these can also be taken out and used as garden chairs (Photograph 4).
- (iii) Three units put together make a settee (Photograph 5) and six units put together make a double bed (Photograph 6).
- (iv) One unit put over the other makes a table. It can be used while using one unit as chair. Different activities like reading, writing, eating can also be easily performed (Photographs 7 and 4). Two units, one over the other, make a good stand for a T.V. set.

(v) Three units, one over the other, make a platform for working in standing position (Photograph 8). It can be used for ironing clothes, cutting vegetables and other similar activities.

(vi) When not required, these units can be put one over the other and used for short-term

storage of different scattered articles in the house (Photograph 9).

These units can provide many more uses like stands for cleaning of ceiling fan, changing of fused electric bulbs in high locations in the house and so on.



N.B.- ALL THE JOINTS ARE SIMPLE NAILED JOINTS & FEVICOL IS USED ALONGWITH.

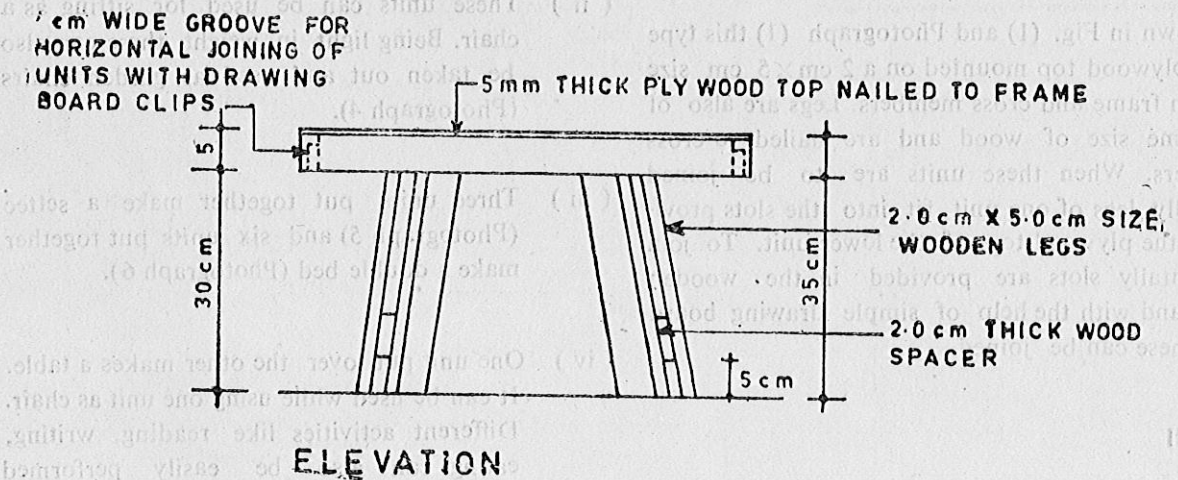
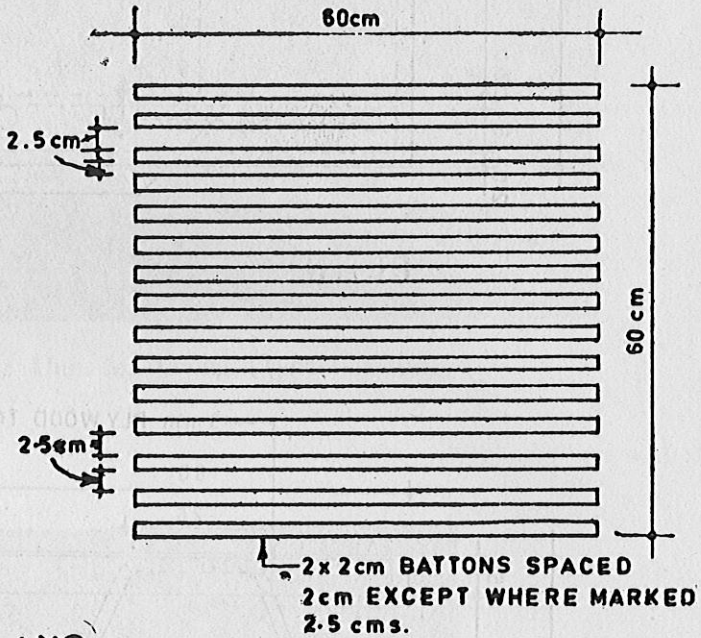
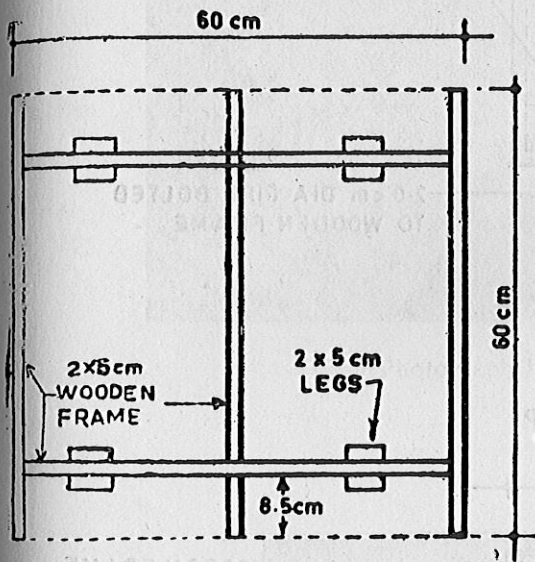
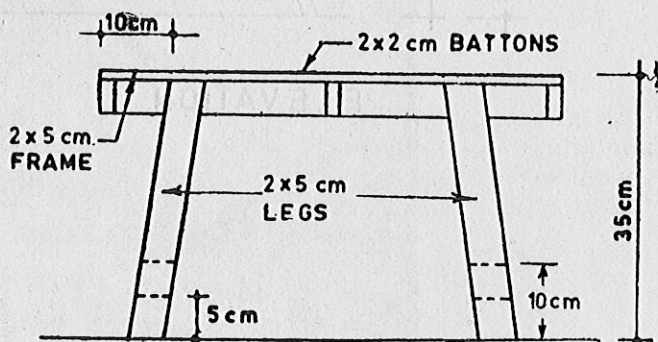
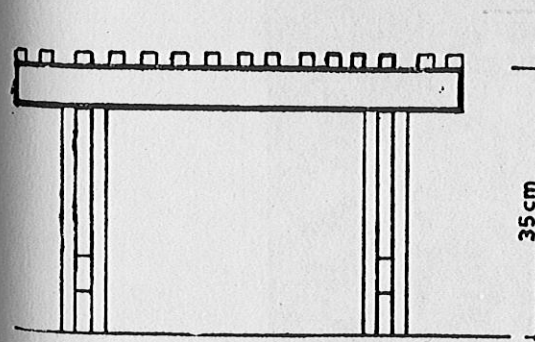


Fig. 1. Units for Living (Type-I)



PLANS



ELEVATIONS

SKETCH DRAWING
SCALE :- 1 cm = 10 cm

(Fig. 2. Units for Living (Type-II))

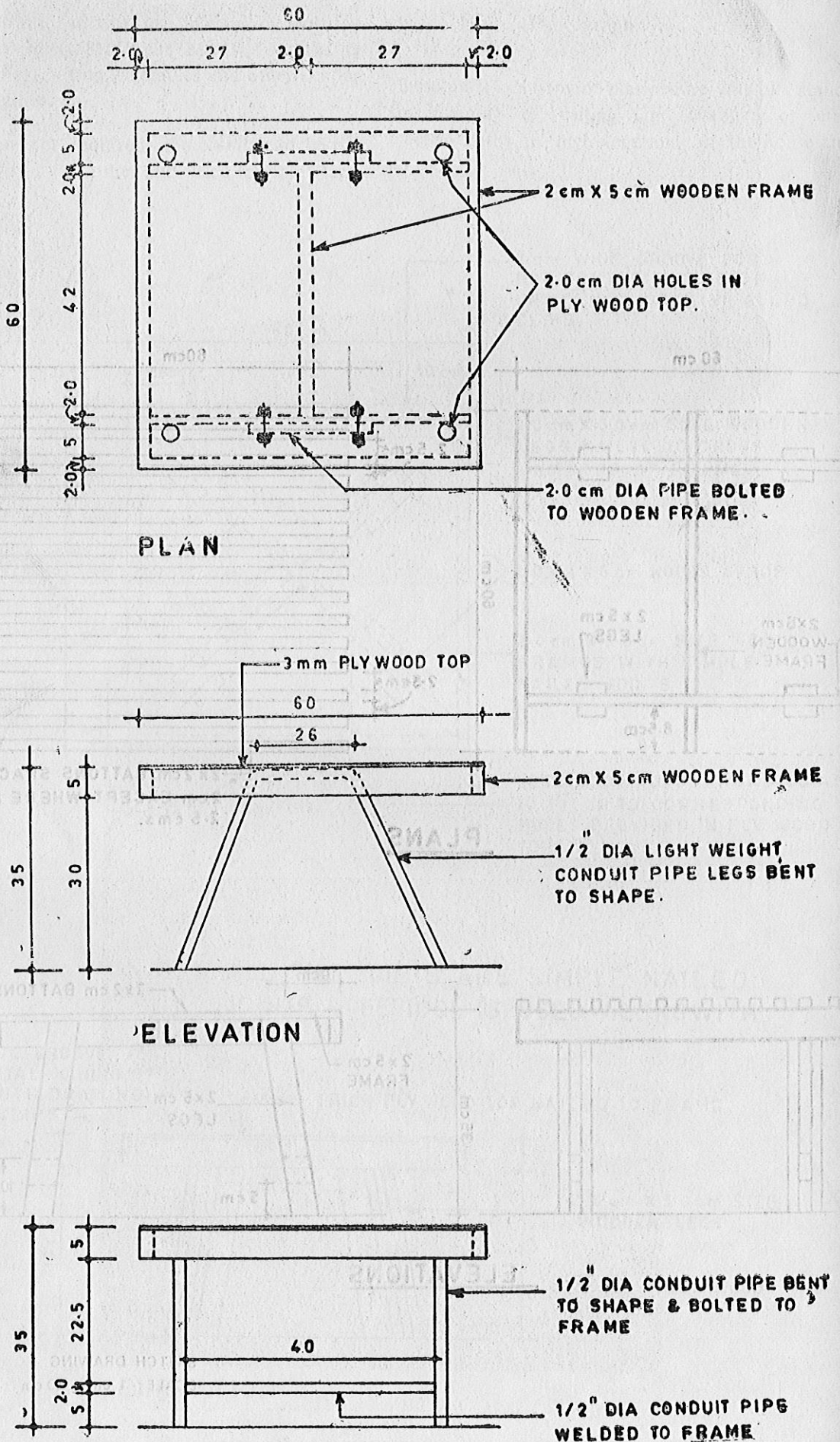
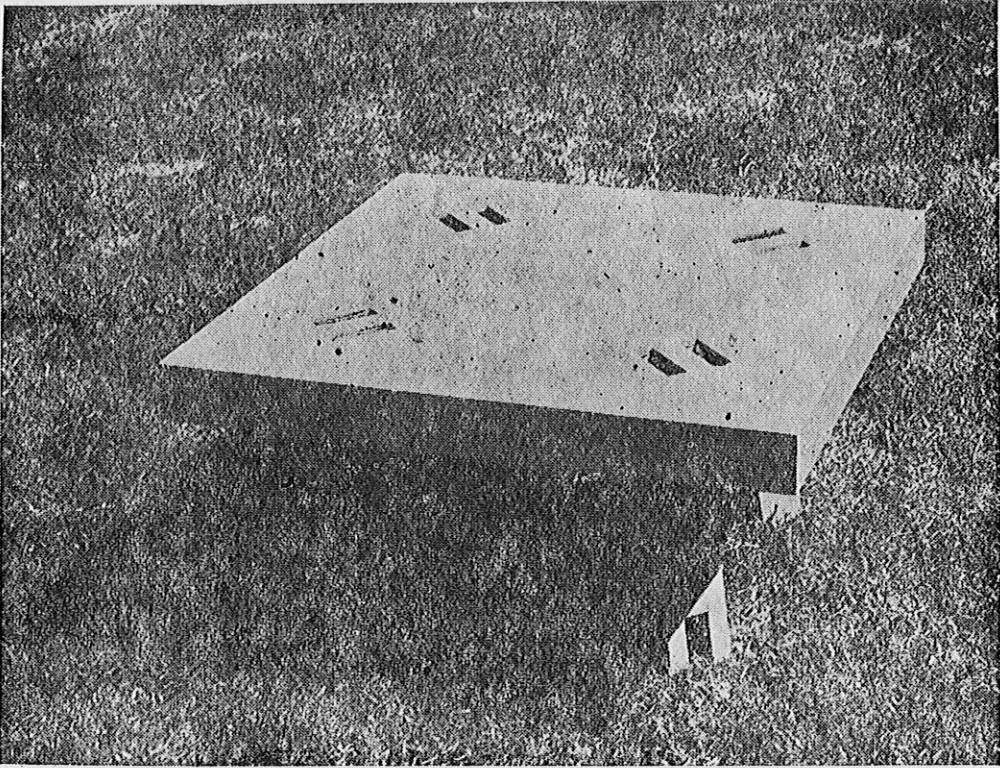


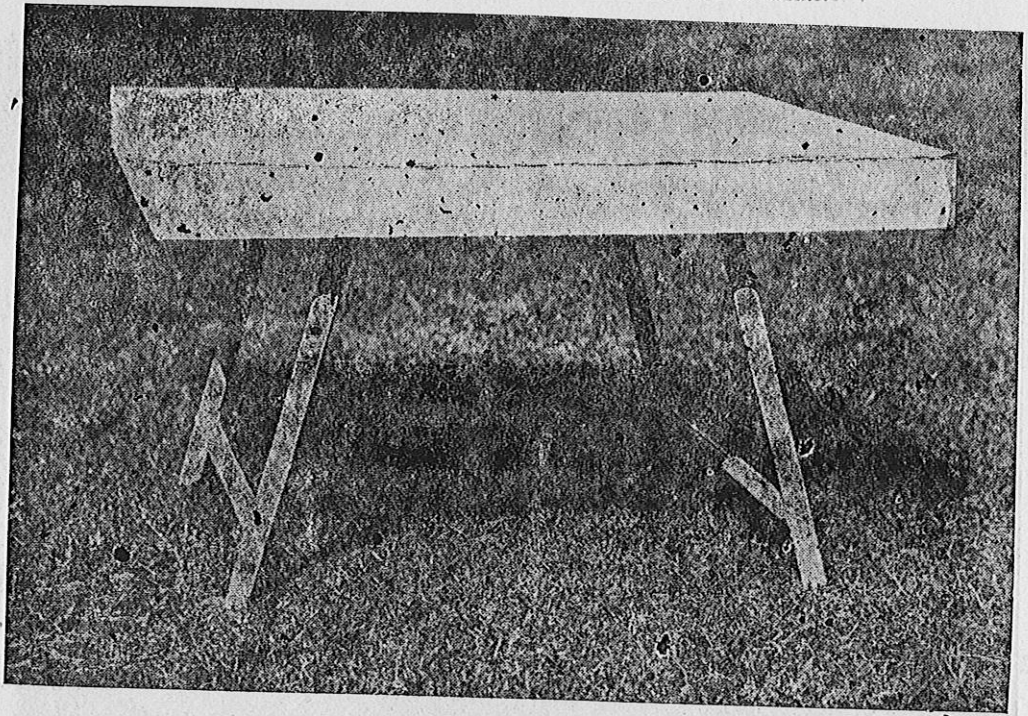
Fig. 3. Units for Living (Type-III)



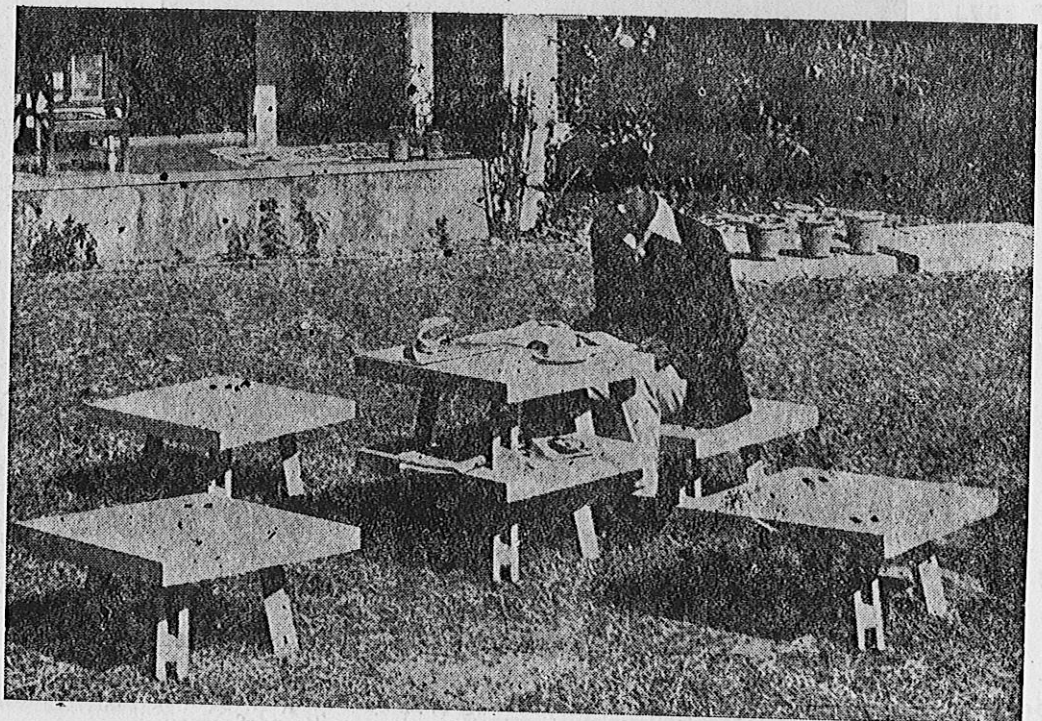
(Photograph 1) : Units for Living (Type-I)



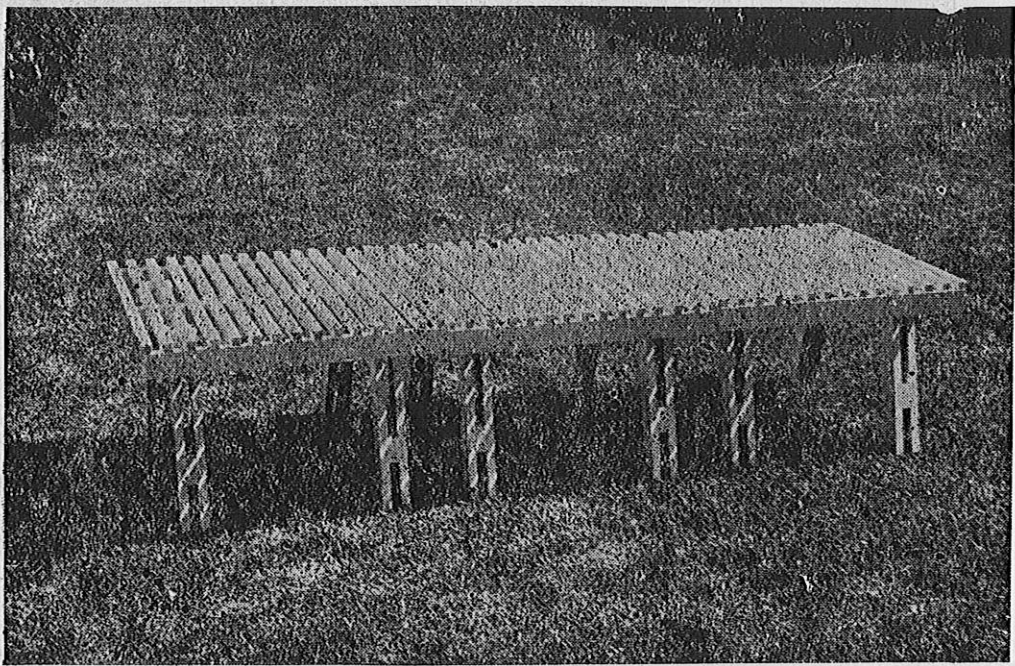
(Photograph 2) : Units for Living (Type-II). Activities like eating/reading can be easily performed if one is sitting on the floor.



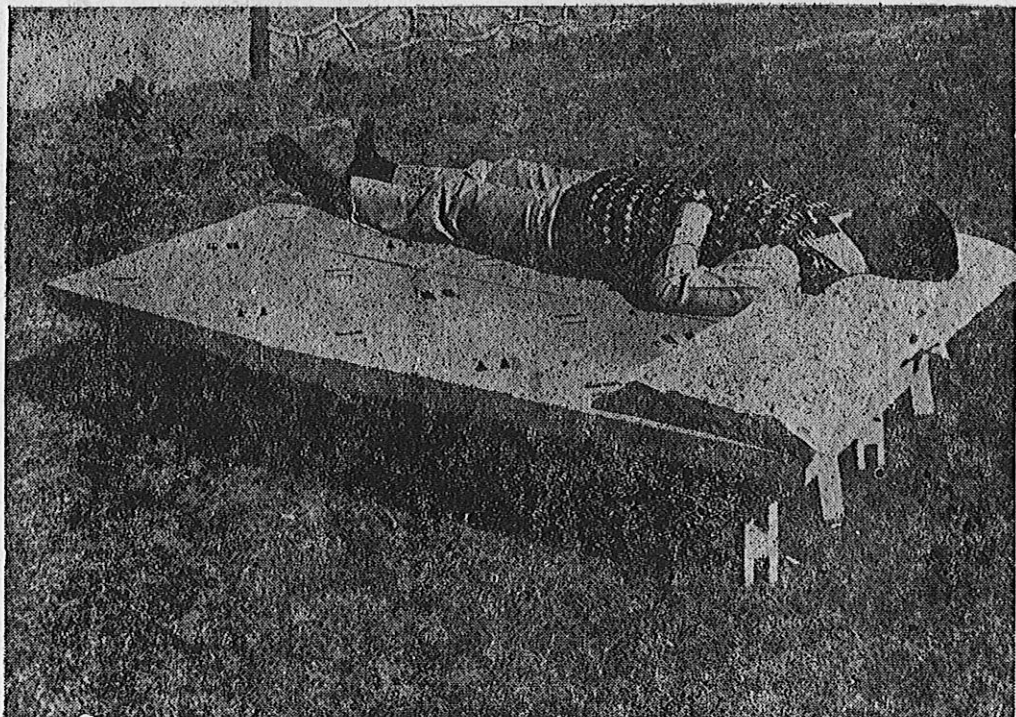
(Photograph 3) : Units for living (Type-III).



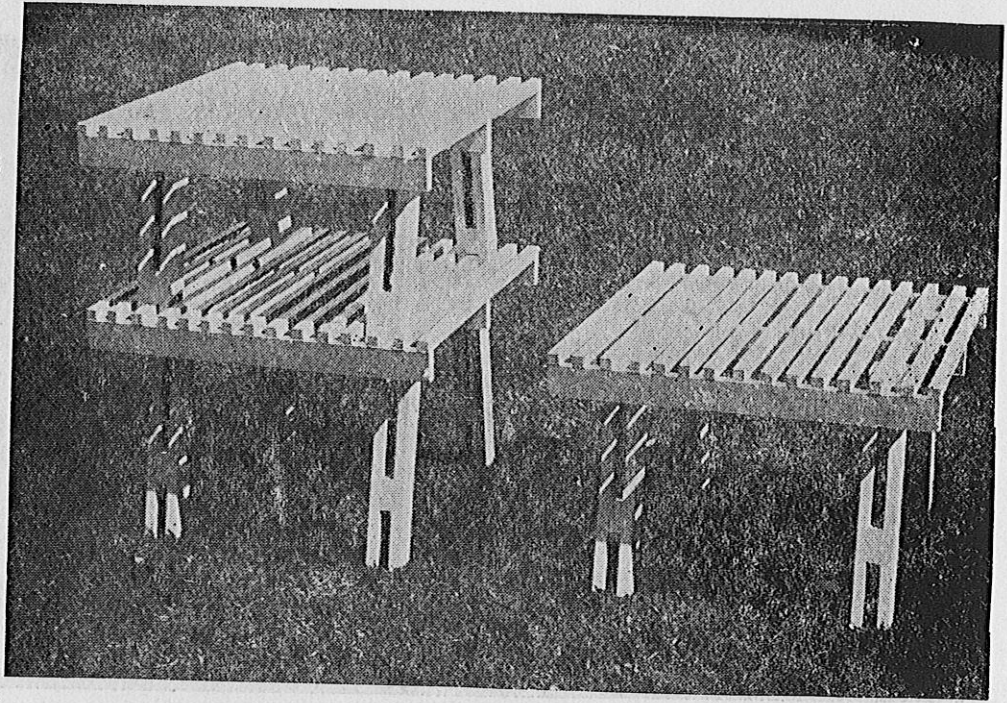
(Photograph 4) : Units can be used for sitting instead of chairs.



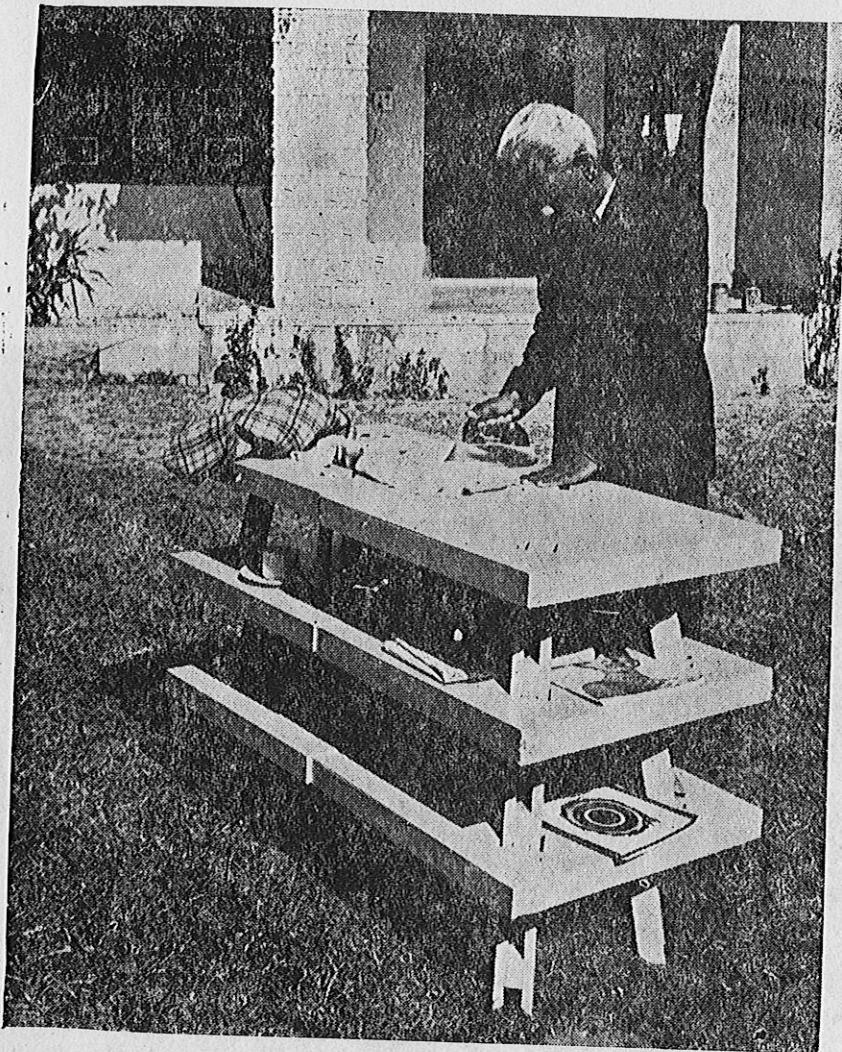
(Photograph 5) : Three units make a settee.



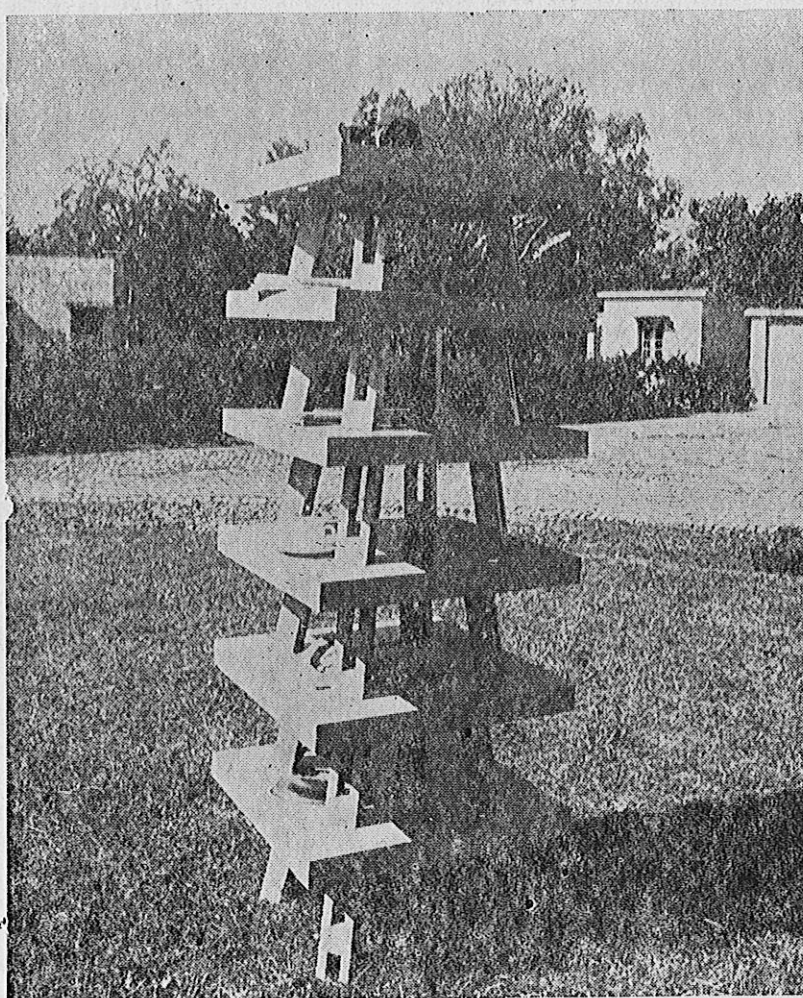
(Photograph 6) : Six units make a double-bed.



(Photograph 7) : Two units one over the other make a table which can be used with one unit as chair.



(Photograph 8) : Three units one over the other make a platform for working in standing position.



(Photograph 9) : Units can be stacked one over the other and used for short term storage of house-hold articles.

Acknowledgement

Author is thankful to Shri Shiam Lal for his help in the development of these units.

There is a demand for short notes summarising available information on selected building topics for the use of Engineers and Architects in India. To meet the need, this Institute is bringing out a series of Building Digests from time to time and the present one is the 132nd in the series. Readers are requested to send to the Institute their experience of adopting the suggestions given in this Digest.

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