



MANUAL OF INSTRUCTIONS

MODERN-MORECRAFT

MODERN-MORECRAFT

"The toy that grows with the boy"

Do you like to make models of things you have seen? Enjoy finding out the Hows and Whys? Want to build brand new buildings?

The MODERN-MORECRAFT outfit you now have gives you a chance to do all this and more, too; for MORECRAFT, in magic manner, equips you to do your own reproducing, inventing, and creating. Want to start right away? Good! Here's how to do it:

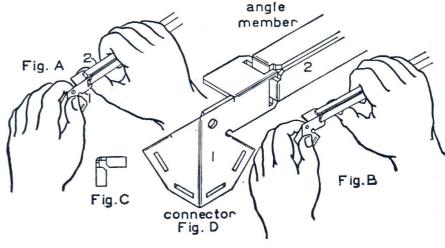
*FIRST: Get acquainted with the new Morecraft Boltless Joint. Its business is to join parts without the use of nuts, bolts, rivets, nails, or rods. Try attaching and detaching the angle members or girders to the different connections or gussets; and learn how to adjust the ends of the angle-member to form a perfect joint. The illustration to the right shows you how. You will find yourself putting Morecraft together and taking it apart in an astonishingly short time. In the smaller sets of Modern-Morecraft, there are no nuts and bolts at all; yet you can build all the models shown for these sets in the Manual of Instructions and many others you will think of yourself. With the larger sets, even, you will find you need very few nuts and bolts. Notice that the individual Morecraft joints are designed to be slightly flexible but that the completed structure is surprisingly rigid and strong.

**SECOND: Study the pictures of the parts and the "Construction Details" at the end of this manual. Engineers, Architects, and Educators all agree that the careful planning of MORECRAFT parts allows a larger number of different combinations with a smaller number of parts, and permits diagonal bracing, etc. making MODERN-MORECRAFT the ideal construction toy.

***THIRD: Select a model to build, beginning with a simple one. You will find that there is an endless store of enjoyment for MODERN-MORECRAFT builders whether they be boys or girls, young or old. The four-year-old, too young to build from pictures, will connect pieces here and there and discover for himself the principles of structural design. You can build readily, using model pictures in the manual, real models, or your imagination. Grown up boys particularly enjoy building "easy-to-put-together, quick-to-get-apart" structures to support complicated motor driven mechanisms.

****FOURTH: Select your parts and start to build. The manual helps you, in building smaller models, by giving you, near each picture, a list of parts required. For the larger models, a blueprint is provided, in addition to the picture in the manual. This blueprint also includes a "BILL OF MATERIAL" and necessary instruction. The models pictured in the manual are suggestions. They do not begin to exhaust the possibilities of your set. As you use your MODERN-MORECRAFT, new

ideas will come to you. You will gradually accumulate so much valuable knowledge of mechanics and engineering that you can develop these ideas and try your hand at inventing.

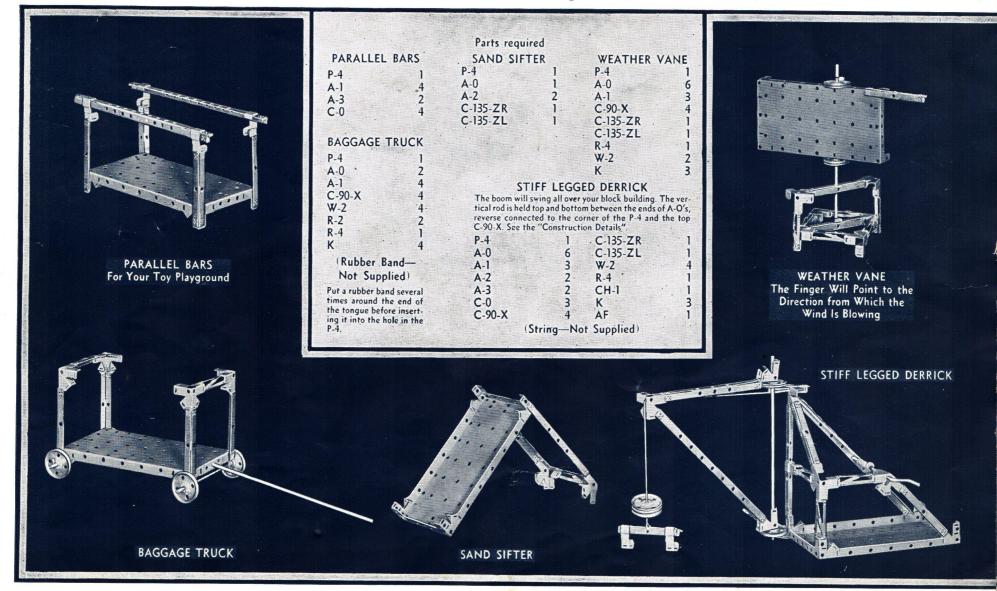


MORECRAFT BOLTLESS JOINT

The operation of the MORECRAFT JOINT is shown in Figs. A and B.

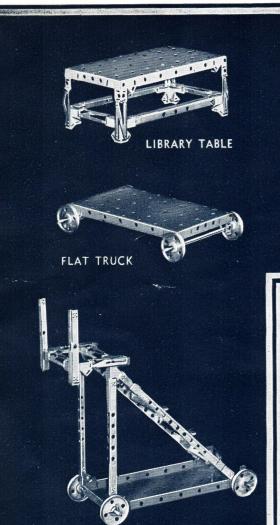
To attach, hold the members as shown in Fig. A with the right thumb under the slots of the connector, 1, and press the angle-member 2, down. The projecting ends of the angle-member will spring apart and enter the slots. The position of the parts for making the connection is shown more clearly in Fig. D. To disconnect, hold the parts with the right thumb under the split end of the angle-member near the connector and pull down on the connector with the left hand. The right thumb will spread the ends of the angle-member and the parts will separate. A slight twisting of the angle-member will assist in disconnecting the members. If properly adjusted, the joint is surprisingly strong and rigid. If it is not, the ends of the angle-member may have become bent. This may be corrected easily by bending the ends of the angle-member until they are in the position shown in Fig. C.

If you have any difficulty building models, if you want to ask questions about MODERN-MORECRAFT, if you want to tell us about any of the discoveries that you make in connection with it, write to us! Meanwhile, happy times to you!

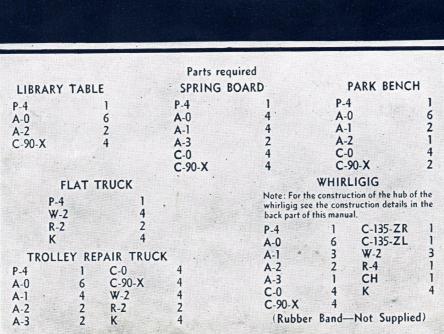


meccanoindex.co.uk Models built with the Beginner Size

SPRING BOARD

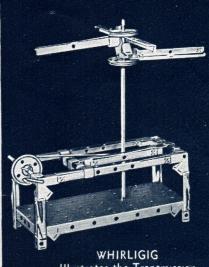


TROLLEY REPAIR TRUCK

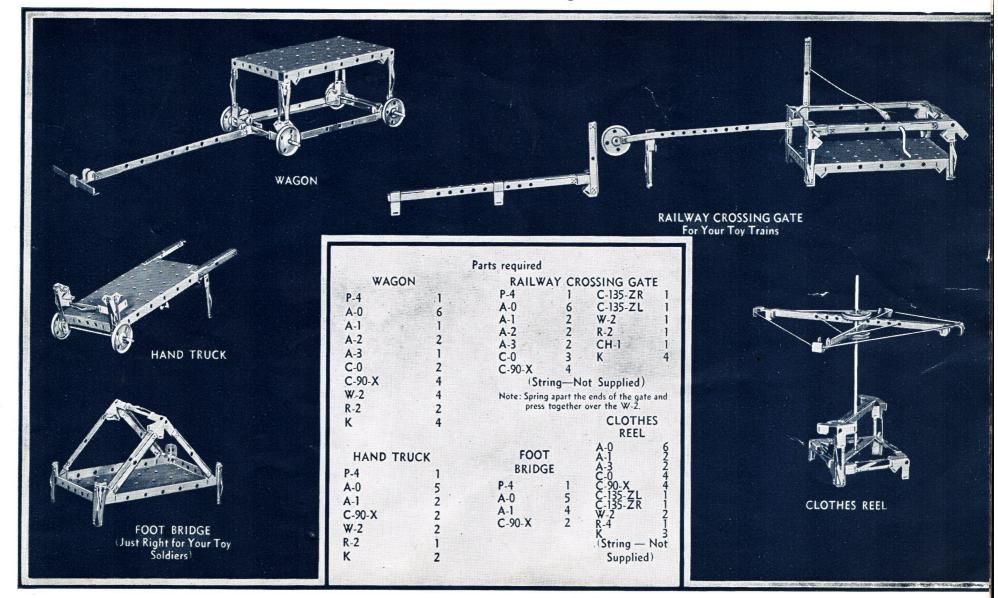


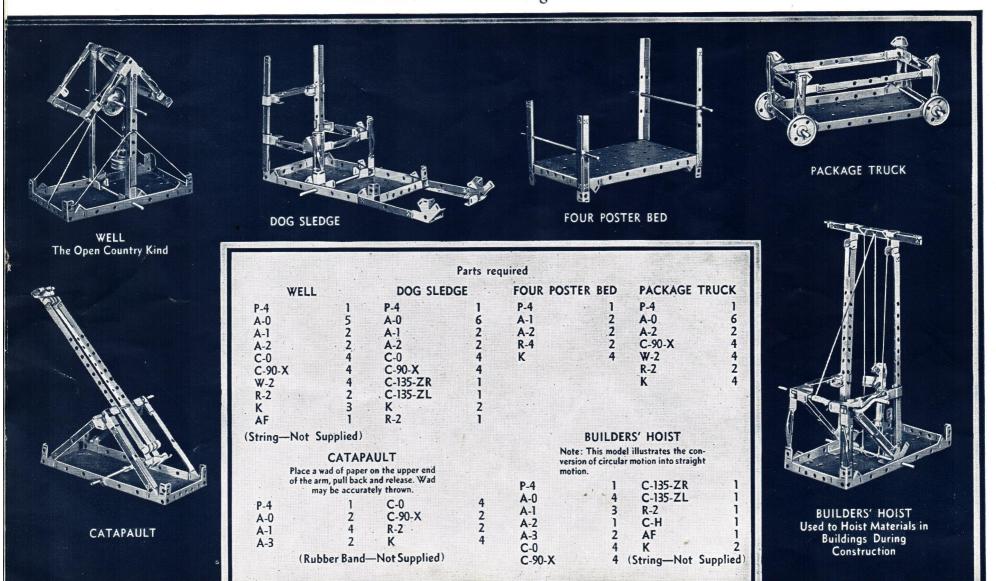


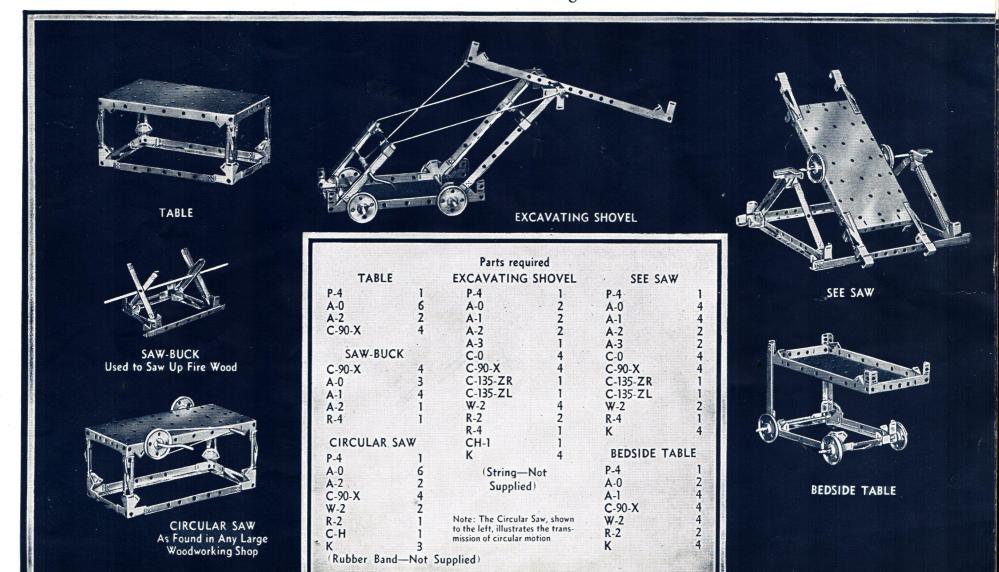
PARK BENCH



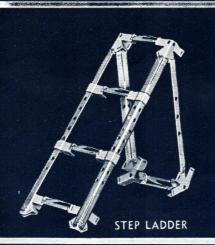
Illustrates the Transmission of Circular Motion

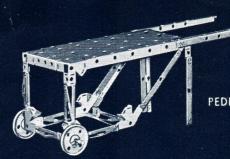




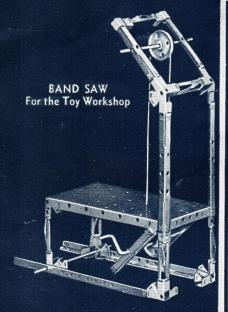




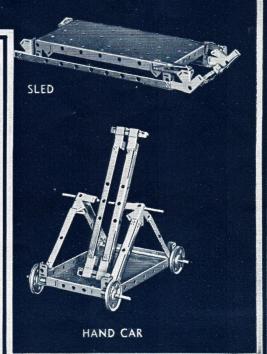


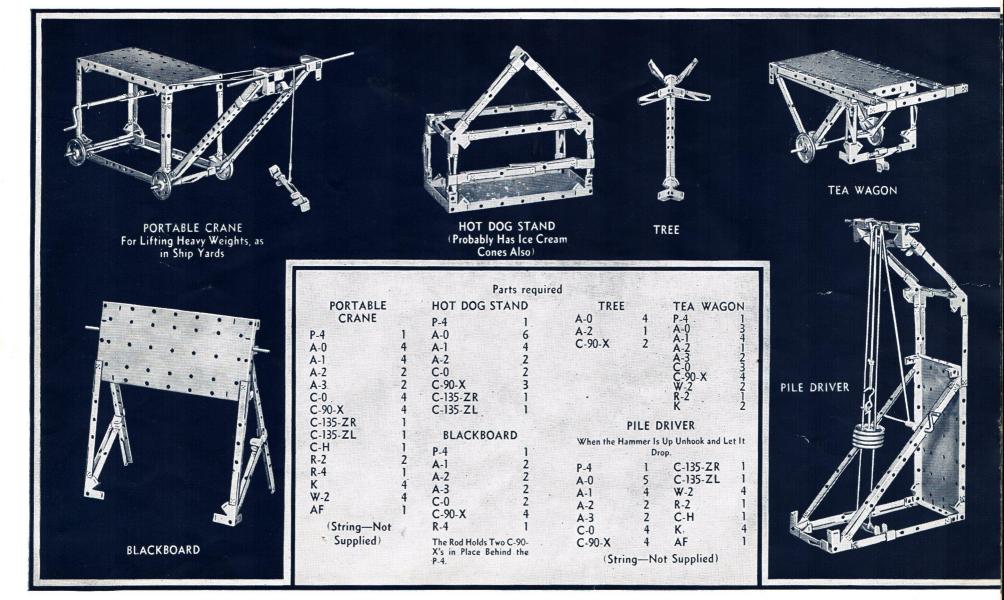


PEDDLERS' CART



			Parts require	ď			
PORTABLE HOIST STEP LADDER			PE	PEDDLERS' CART			
P-4	1	A-0	5	P-4	1	C-135-ZR	1
A-0 A-2	3	A-2	2	A-0	6.	C-135-Z L	
A-3 C-90-X R-2	2	A-3 C-0	2	A-1	4	W-2	2 2
C-90-X R-2	7	C-90-X	4	A-2 C-90-X	2	R-2 K	2
K-4	Ţ	C-135-ZR	1	C-50-X		N.	۷.
W-2 C-H	4	C-135-ZL	· . i				
K AF	4				SL	ED	
AF	1.5			P-4	1	C-90-X	2
(String-				A-0	4	C-135-ZR	1.
Supplier	d)			A-3	2	C-135-ZL	1
	BAND	SAW			The runners are fastened together front and rear and the P-4 simply rests within them.		
P-4	1	C-135-ZR	1	rear and the	P-4 Simp	oly rests within ti	nem,
A-0	6	C-135-ZL	. 1	1000	LIANIE	CAR	
A-1 A-2	4	W-2	2		HAND		
A-2 A-3	2 2	R-2	2	P-4	1	C-90-X	2
C-0	2	C-H K		A-0	2	R-2	. 2
C-90-X	4	Λ.	4	A-1	4	R-4	y 1
(String—Not Supplied)			A-2	2	W-2 K	4	
,,,,,	tring 140	ii Supplied)		C-0	4	V	7
Section of the section				Warren von			







UNLOADING CRANE
Used For Unloading Grain or Coal
From Steamers and Barges

Parts required



PLAYGROUND SWING

STEEL SCOW OR INVERTED BRIDGE TRUSS



UNLC	ADII	NG CRANE
P-4	1	C-180-Z
A-0	8	C-180-DS
A-1	7	W-2
A-2	6	R-0
A-3	2	R-2
C-0	6	CH-1
C-90-X	6	AF
C-135-ZL	2	K
C-135-ZR	2 -	SN

String-Not Included

Note: The C-180-DS is pivoted to the base plate P-4 by a snap rivet SN. The wheels W-2 are fastened to the C-180 DS by snap rivets. See Construction Details to make the clam shell bucket.

STEEL SCOW

A-0	8	C-135-ZL	2
A-1	6	C-135-ZR	2
A-2	5	C-180-Z	2
C-90-X	- 4		

PLAYGROUND SWING

A-0	2	C-135-ZL	2
A-1	6	C-135-ZR	2
A-2	6	C-180-Z	2
C-90-X	6	R-4	- 1

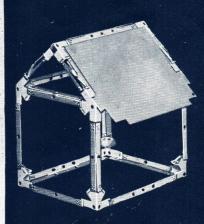
The Craftsman Size MORECRAFT gives you 5 new parts. First there are two new connection members, the C-180-DS. Next there is a very useful pulley sheave, W-1. Then there is a new fastening member, the snap rivet, SN by means of which members may be connected through their holes. These rivets are very useful in forming a pivoted joint. The last new element is the special panel insert, by the means of which you may fill in surfaces of your structures to improve their appearance.

Learn all these new parts and their uses from the pictures given at the end of the Manual.

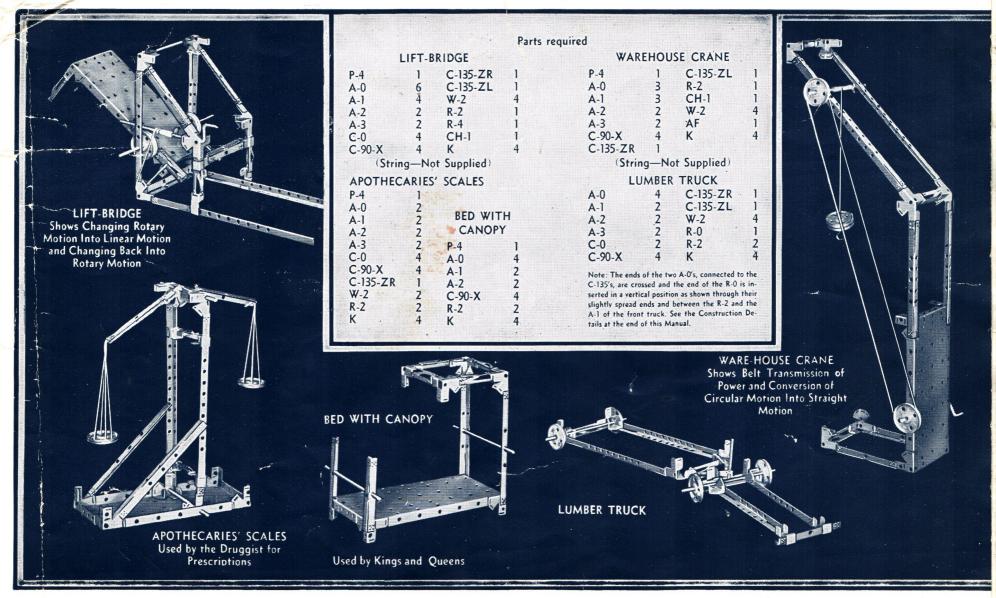
SUMMER HOUSE

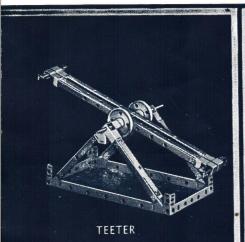
A-0	4	C-135-ZL	2
A-1	8	C-135-ZR	2
A-2	5	P-12	2
C-90-X	6		

This is the first model to show the use of the panel inserts. See the Construction Details at the end of this Manual.

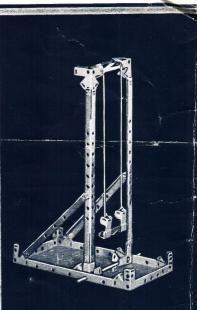


SUMMER HOUSE
Of Modern All Metal Construction





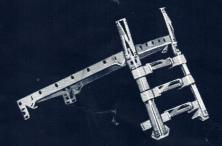
The same of				*****	
			Parts re	quired	
TEETER			PLAYGROL	IND SLIDE	ROPE SWING
P-4 A-0 A-1 A-3 C-0 C-90-X R-2 W-2	1 2 4 2 4 2 1 2		P-4 A-0 A-1 C-0 C-90-X	1 5 2 4 2	P-4 1 A-0 2 A-2 2 A-3 2 C-0 2 C-90-X 4 R-2 1 (String—Not Supplied)
P-4 A-0 A-1 A-2 A-3 C-0 C-90-X C-135-ZR	DOCK I 1 6 3 2 1 4 2 1 tring-Not	C-135-ZL W-2 R-0 R-2 R-4 CH-1 AF K	1 4 1 1 1 1 1 1 4	are crossed and position as show tween the R-2 a foot rest are sim	WAGON 1 C-135-ZR 1 6 C-135-ZL 1 3 W-2 4 2 R-0 1 2 R-2 2 4 K of the two A-0's, connected to the C-135's, the end of the R-0 is inserted in a vertical in through their slightly spread ends and bend the A-1 of the front truck. The seat and ply laid in the positions shown. See the Constant the end of this Manual.

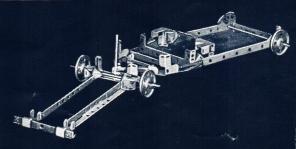


ROPE SWING
(For Your Toy Playground)

a consent pair The other tight design use DES







PLAYGROUND SLIDE

WAGON Front Wheels Steer as in a Real Wagon

MORECRAFT CONSTRUCTION DETAILS



Fig. 1 shows a C-90-X connected to a single angle-



Fig. 2 shows a second angle-member connected at a 90° angle to the first anglemember.



Fig. 3 shows a third anglemember connected to the same connector at an angle of 45° to the first angle-member.



Fig. 4 shows a fourth anglemember reverse connected to the connector C-90-X. This is a detail found in a large number of the MORECRAFT



Fig. 5 shows two anglemembers connected to a straight-angle connector C-180-Z. This type of connector is used whenever it is desired to make a long structure. The additional slots of the connector provide for bracing as shown in Fig. 6.





Fig. 7 shows a boom end. C-360. This connector as shown permits connecting angle-members at right angles to the boom.

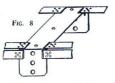


Fig. 8 shows a double straight angle connector, C-180-D, as used to extend the length of a double boom. A similar connector, the C-180-DS, (see MORECRAFT PARTS) is used the same as the connector shown here.



Fig. 9 shows the use of the C-180-D connector as the pivoted end of a boom. The lower and upper connectors may be pivoted by the snap rivets shown or by a rod or bolted as described in Fig. 26,



Fig. 10 shows the use of A-O'S to connect two C-180-D's. Other connections may be similarly connected. See Fig. 11

Fig. 17 and Fig. 17A are plan and side views, respectively, of the arrangement for connecting the front axle pivot in the LUMBER TRUCK and WAGON models for the BEGINNER SIZE. The lower end of the rod is inserted between the axle rod and the angle-member of the front truck.









Fig. 18 shows how to connect the upper end of the pivot rod of the model of the STIFF-LEGGED DERRICK shown for the BEGINNER SIZE. An A-O is connected to the cor-

Fig. 12 shows how to make a clamshell-bucket for use with your der-

ricks, etc., using two C-180-D's. The

end of the hoist line may be tied as

shown in Fig. 12A and one loop

slipped over each end of the rod.





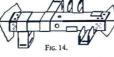
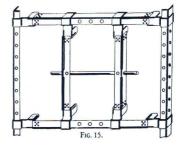


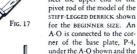
Fig. 13 shows the C-O, which is the most useful MORECRAFT connector. Fig. 14 shows a C-O in each of four positions on an angle-member to permit the attachment of an angle-member in each of four directions. The end C-O's prevent the angle-member upon which they are mounted, being detached. Fig. 15 shows how it is possible to locate a shaft rod in any desired position regardless of hole spacings.





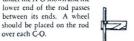


Figs. 16 and 16A show how to form the hub used in the WHIRLIGIG and CLOTHES REEL models built with the BEGINNER SIZE. Put a rod through the holes in the tops of a pair of C-135-Z connectors. Rotate them into the position shown in Fig. 16. Then force them together as shown in Fig. 16A. Four angle-members may be connected to



over each C-O.





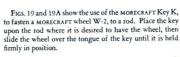






Fig. 20 shows the use of a key to limit the motion of a rod lengthwise yet permit it to rotate freely.

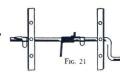


Fig. 21 shows how to use a key to fasten the end of a string to wind it upon a crank, CH.



Fig. 22 shows how to fasten an anglemember to a shaft rod. The screw of a collar is removed and the rod is inserted through the collar and one of a pair of holes of an angle-member. Then the screw is inserted through the other hole in the angle-member and tightened to hold the member in the desired position. A connector may be similarly secured. An example of this use is the HAND CAR built with the DESIGNER SIZE.



Fig. 23 shows how to use the snap rivet. The pieces to be joined are placed with holes in alignment and the rivet is inserted with thumb pressure. Use of a single rivet permits a swivel action to be obtained.

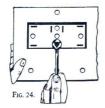


Fig. 24 shows the use of the HANDY RIVET EXTRACTOR to remove the rivets



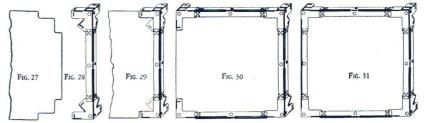
After use snap rivets may become compressed and thus

lose their tension. To remedy this, insert the prong of the rivet extractor between the slot portions of the rivet and

To lock two nuts in place put them upon a bolt inserted through holes in the members to be joined and turn in opposite directions as shown by the arrows in Fig. 26. This may be done by the use of the two wrenches furnished with all MORECRAFT SETS SUPplied with nuts and bolts.



Fig. 26.



The above Figs. show how to use the MORECRAFT PANEL INSERT. The corners are to be placed on top of the connectors and the sides are to be below the angle-members. First, place the panel shown in Fig. 27, with the assembly shown in Fig. 28, as shown in Fig. 29, then add the parts shown in Fig. 30, and, last, complete by connecting the left-hand corners with an angle-member.

MORECRAFT SEPARATE PARTS







CONNECTORS



ST-5

A-0, 35c per doz. A-1 Angle-Member 40c per doz.

10c each

00000 1 A-2 ANGLE-MEMBER 45c per doz.

ANGLE-MEMBERS 000000000

000000000000000000 A-4 ANGLE-MEMBER 60c per doz.

PANELS

(00000 10c per doz.

(0000000) ST-7 10c per doz.

(00000000000) ST-11 15c per doz.

CONNECTORS

C-135-ZL

2 for 5c.

shown in the pictures of the MORECRAFT models may be different from those shown above. If the model ST-21 21-HOLE STRIP 20c per doz. shows 3 holes, the member is an A-2; and if it shows 5 holes, it may be either an A-2 or an A-3.

A-3 ANGLE-MEMBER 50c per doz.

Note: The number of holes in the angle-members

20c per doz.





P-12 25c per doz.

ANGLE BRACKETS



B-3



PT-11 20c per doz.



15c per pair.

S-3









B-1

010109 5c each

MOTOR SUPPORT BRACKET 0 0

ECCENTRIC

5c each.

5c per doz. 5c per doz.

10c per doz. 15c per doz,

20c per doz.

SN 10c per doz.

A-F 15c per doz.

25c per doz.

25c per doz.

B-2

10c per doz. 2c each

CR 10c each

GEARS PULLEYS AND WHEELS



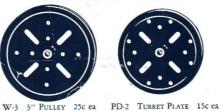
W-1 10c each 5c each

W-2 2 for 15c

PIERCED DISC PD-1 10c each PULLEY











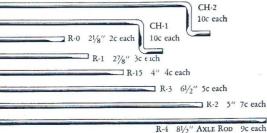


PINION G-1 10c each





RODS AND CRANKS



CREW DRIVER 5c each









\$2.95 each



M-1 \$1.50 each

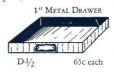


\$1.50 each

GRADUATE SIZE WOODEN CABINET

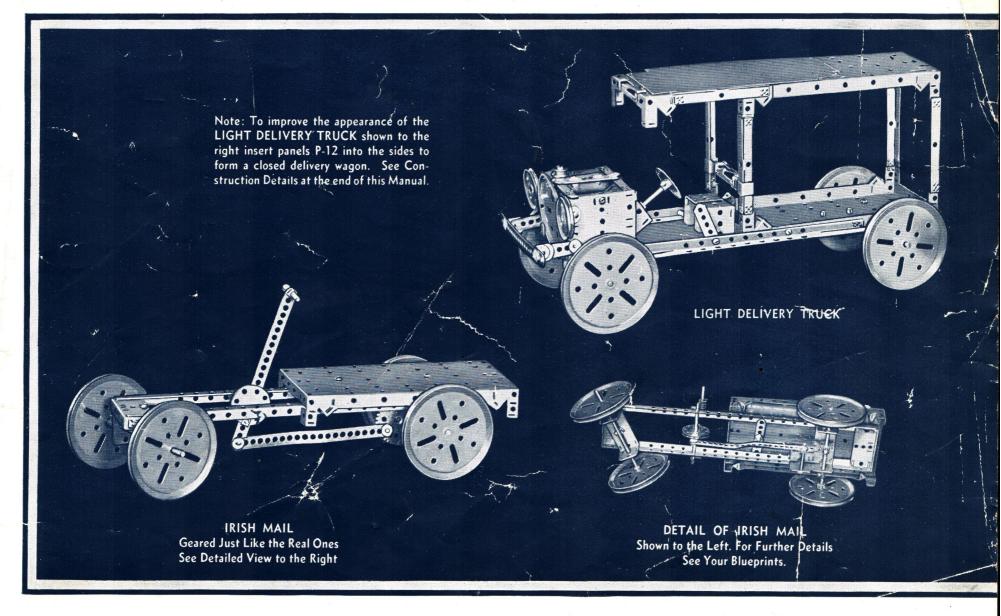
D-1 85c each

2" METAL DRAWER



Many dealers carry Separate Morecraft Parts. If your dealer cannot supply you, send check, money order, or stamps for the parts you want and we will send your order to you postpaid.

THE SKIPPER TOY COMPANY, INC. BRANFORD, CONN., U.S.A.



GRADUATE SIZE This is to introduce the GRADUATE SIZE MORE-CRAFT. You have in this set a large amount of material. You have had three joining methods. You have learned to read blueprints. Therefore you are ready STIFF LEGGED DERRICK to proceed in the field of Invention and Engineer-Will Lift Your Toy Locomotives ing. Your opportunity to contruct new and interesting models is limitless. A number of such models have been worked out for you. Two are given on this page. The Stiff Legged Derrick is motor driven. Try to work out a way to drive both the boom and the hook from the motor. The bridge is large enough for your largest train. However, you may make it longer or wider if you want to. Also you can put it up on abutements or make it a draw bridge. Use your blueprints as much as possible. LARGE TRUSS BRIDGE Large Enough For Your Largest Train