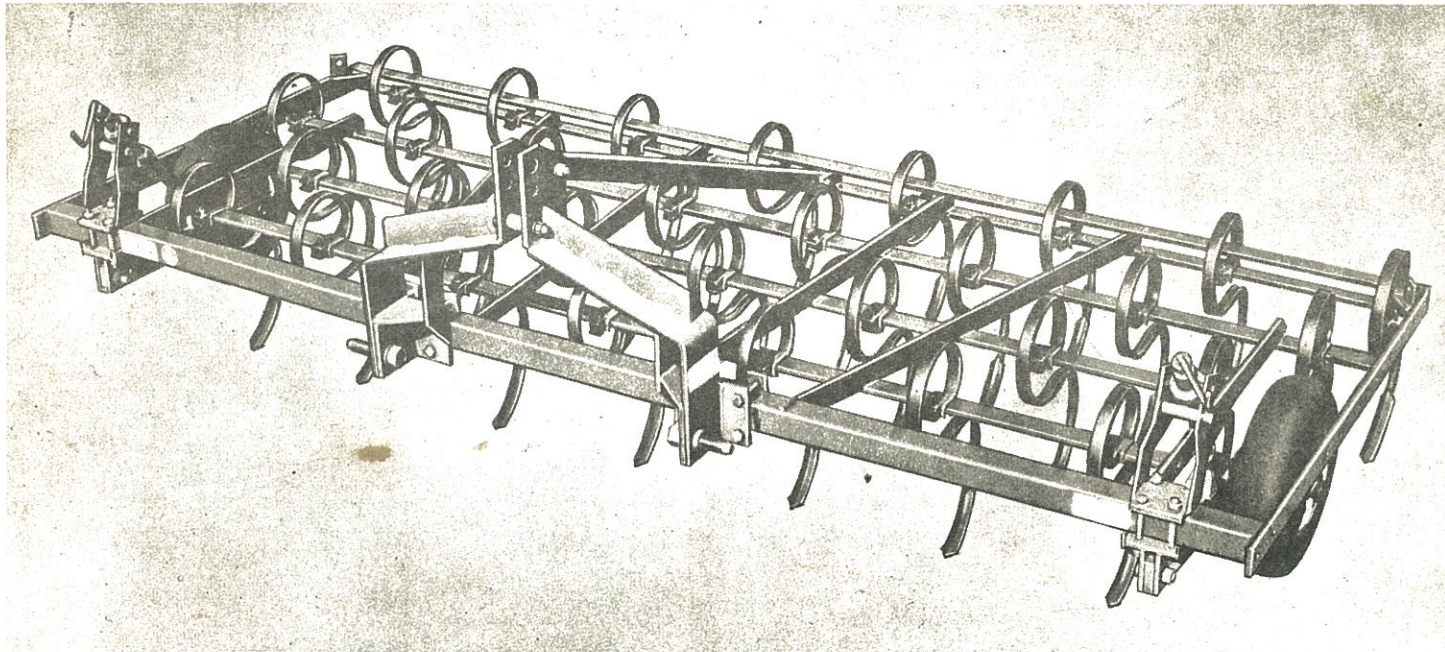


Assembly, Operating Instructions
and Parts List



SPRING-TINE CULTIVATORS

MODELS LST & LSTW



POST OFFICE BOX 107 — YAZOO CITY, MISSISSIPPI 39194 U. S. A.

— A Corporate Division of DYNAMICS CORPORATION OF AMERICA



CTA-150

FOREWORD

THIS MANUAL PROVIDES SUGGESTED OPERATING TECHNIQUES TO HELP YOU OBTAIN EFFICIENT AND DEPENDABLE USE FROM YOUR NEW **AMCO** EQUIPMENT. THIS MANUAL ALSO CONTAINS GENERAL INFORMATION, SPECIFICATIONS, SAFETY SUGGESTIONS, MAINTENANCE, AND SET-UP INFORMATION.

READ THIS MANUAL CAREFULLY BEFORE OPERATING THE EQUIPMENT. KEEP IT HANDY FOR FUTURE REFERENCE. IF, AT ANY TIME, YOU HAVE ANY QUESTIONS, REMEMBER YOUR **AMCO** EQUIPMENT DEALER IS BEST QUALIFIED TO HELP YOU. HE HAS TRAINED SERVICE TECHNICIANS AND **AMCO** REPLACEMENT PARTS TO KEEP YOUR **AMCO** TILLAGE TOOLS IN TOP OPERATING CONDITION AT ALL TIMES.

SERVICE DEPARTMENT



YAZOO CITY, MISSISSIPPI

GENERAL SPECIFICATIONS

Model	Width	No. of Tines	Approx. Weight
LST-30	10'	30	810
LST-32	11'	32	830
LST-36	12'	36	960
LST-38	13'	38	1020
LSTW-52	17'	52	1400
LSTW-54	18'	54	1420
LSTW-58	19'	58	1550
LSTW-60	20'	60	1610

RECEIVING INSTRUCTIONS

The following information will enable the receiver and assembler to identify by shipping assembly number, the correct number of pieces or bundles of each component needed to make up a complete machine of the sizes listed below.

SPRING TINE CULTIVATOR – MODELS LST and LSTW										
SHIPPING ASSEMBLY		NO. USED PER MODEL								WT. EA.
MODEL LST–		30	32	36	38	W52	W54	W58	W60	
A74856	10' Basic Frame	1	1	1	1	1	1	1	1	340
A74881	3-Pt. Hitch Assembly	1	1	1	1	1	1	1	1	140
A74741	Straddle Mount Kit	1	1	1	1	1	1	1	1	12
A74896	Gauge Wheel – Long (R)	1	1	1	1	1	1	1	1	54
A74801	Gauge Wheel – Long (L)	1	1	1	1	1	1	1	1	54
A74886	Gauge Wheel – Short (R)					1	1	1	1	48
A74891	Gauge Wheel – Short (L)					1	1	1	1	48
A74861	Tine Assembly w/Shovel	30	32	36	38	52	54	58	60	7
A74911	6" Extension		1				1			8
A74916	12" Extension			1				1		106
A74921	18" Extension				1				1	156
A74866	Wing Frame – R					1	1	1	1	120
A74871	Wing Frame – L					1	1	1	1	120
A74876	Pivot Bar					1	1	1	1	50
A74806	Wing Stop					1	1	1	1	36
A74931	Truss Rod					1	1	1	1	14
OPTIONAL EQUIPMENT										
P7160	2½" Sweep	30	32	36	38	52	54	58	60	½
P7171	4" Sweep	30	32	36	38	52	54	58	60	1
A74581	Safety Lamp Bracket	1	1	1	1	1	1	1	1	2
A74936	Mechanical Wing Lift Kit					1	1	1	1	24
A74926	Hydraulic Kit									
A74941	Hydraulic Wing Lift					1	1	1	1	48
A74981	3 x 16" Cylinder					1	1	1	1	35

ASSEMBLY INSTRUCTIONS

The following text describes and illustrates the recommended procedure for assembling the AMCO Spring-Tine Cultivator. Wherever a difference in procedure occurs due to the difference in the cultivator model it will be so noted.

NOTE: The right and left hand side of the cultivator is designated when facing the direction the machine will travel in operation.

Place all bundles where they will be convenient. Open all bundles and arrange loose parts where they may be readily seen when needed but do not mix parts of one bundle with those of another. Study all the components and proceed with the step by step instructions.

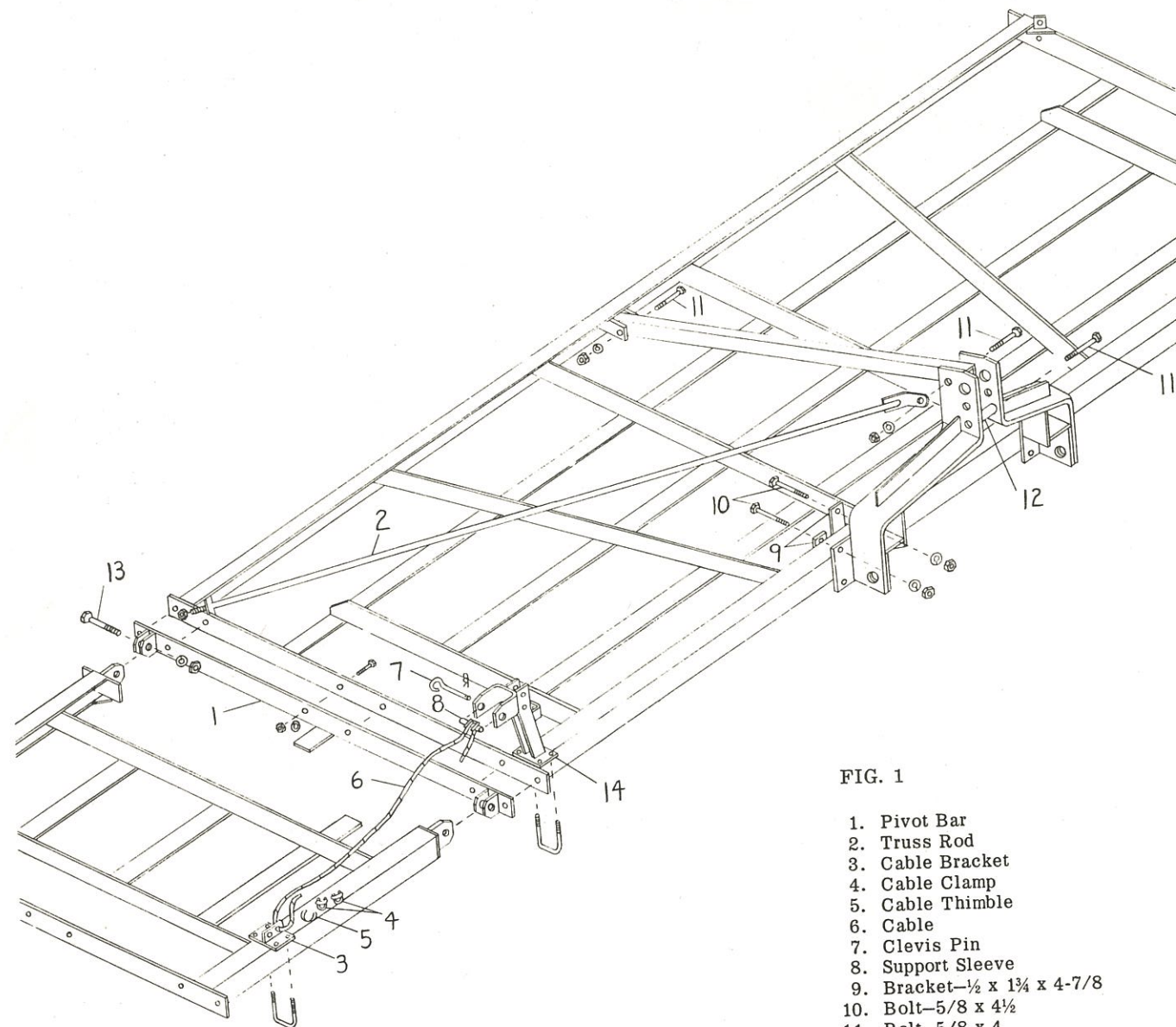


FIG. 1

1. Pivot Bar
2. Truss Rod
3. Cable Bracket
4. Cable Clamp
5. Cable Thimble
6. Cable
7. Clevis Pin
8. Support Sleeve
9. Bracket— $\frac{1}{2}$ x $1\frac{1}{4}$ x 4-7/8
10. Bolt— $\frac{5}{8}$ x $4\frac{1}{2}$
11. Bolt— $\frac{5}{8}$ x 4
12. Bushing— $1\frac{1}{4}$ O.D. x 2
13. Bolt— $\frac{3}{4}$ x 3
14. Wing Stop

STEP NO. 1 MAIN FRAME, HITCH & TRUSS ROD ASSEMBLY

- A. Begin cultivator assembly by blocking main frame approximately 24" from the floor. Position 3-pt. hitch assembly on front frame member as shown in Fig. 1. Make sure the hitch is centered on frame (center of frame is approximately $60\frac{1}{2}$ " from outside end of frame). Secure hitch assembly using four (4) brackets and eight (8) $\frac{5}{8}$ " x $4\frac{1}{2}$ " bolts, lockwashers and nuts. Place one (1) bushing between lower holes of upper portion of hitch and secure with a $\frac{5}{8}$ " x 4" bolt, lockwasher and nut. Next attach rear brace from hitch to rear of main frame using two (2) $\frac{5}{8}$ " x 4" bolts, lockwashers and nuts. (See Fig. 4)
- B. Insert threaded end of truss rod into lug on rear corner of frame and attach opposite end to hitch as shown in Fig. 1. Use previously installed bolt at hitch end of truss rod and one (1) lockwasher and nut on threaded end of truss rod. Repeat procedure on opposite side of frame.
- C. Attach a pivot bar to each end of main frame using six (6) $1\frac{1}{2}$ " x 2" bolts, lockwashers and nuts (place extension on bottom side). When

attaching wing sections to pivot bars, use one (1) $\frac{3}{4}$ " x 3" bolt, lockwasher and nut at each corner.

- D. Mount one (1) Wing Stop—R on right front corner of frame as shown in Fig. 1 (the rear bracket of same will bolt to upper gauge wheel as to be described in Fig. 2). Secure using two (2) U-bolts, lockwashers and nuts. The cable bracket is to be fastened on wing frame in position shown and secured with two (2) U-bolts, lockwashers and nuts. Place one (1) support sleeve into wing stop and secure with a clevis pin and hairpin cotter as shown in Fig. 1. Wrap one end of cable ($\frac{5}{16}$ x 41 Lg.) around support sleeve (between stops on sleeve) and fasten using one (1) cable thimble and two (2) cable clamps. The opposite end of cable is to be inserted through front hole of cable bracket (after inserting cable thimble in hole) and secured with two (2) cable clamps. Repeat above procedure on left side of machine.

When attaching 3-pt. hitch (Cat. I) to $4\frac{1}{2}$ ' main frame follow the same procedure.

STEP NO. 3 TINE AND EXTENSION ASSEMBLY

- A. Fasten tine assemblies to $1/2 \times 2$ flat frame members as shown in Fig. 3 using $7/16'' \times 1\frac{1}{4}''$ bolt furnished with tine assembly. For proper tine spacing refer to tine spacing diagrams.
- B. Refer to receiving instructions on Page 2 when determining which extensions are to be used on the various models and widths. As shown on center page parts drawing, the 6'' extensions can be bolted to outside ends of either main frame or wing frames. The 1 ft. and $1\frac{1}{2}$ ft. extensions are also bolted to outside ends of same frames. Use $1/2'' \times 1\frac{1}{4}''$ bolts, lockwashers and nuts to fasten all extensions.
- C. Refer to tine spacing diagrams when positioning the tine assemblies. Place center of tine on circles dimensioned as shown. When spacing tines on $4\frac{1}{2}$ ft. frame extensions, use same extension placings as used on the basic 10 ft. frame setup.

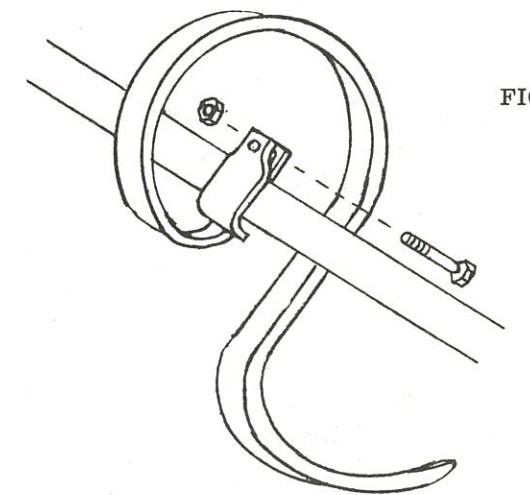


FIG. 3

NOTE: All cultivators to be set up for 4'' tine spacing are pre-marked at factory. Center tine assemblies on frame marks.

STRADDLE MOUNT KIT ASSEMBLY

Position one (1) pin bracket (R) beside 3-pt. hitch assembly as shown in Fig. 4. Use a 4-hole mounting plate on rear side of frame member and secure as shown using four (4) $5/8'' \times 4\frac{1}{2}''$ bolts, lockwashers and nuts. Place a sleeve ($1\frac{1}{4} \times 2\frac{3}{4}$) between brackets and secure using a clevis pin with clinch pin. Repeat on left side of hitch assembly.

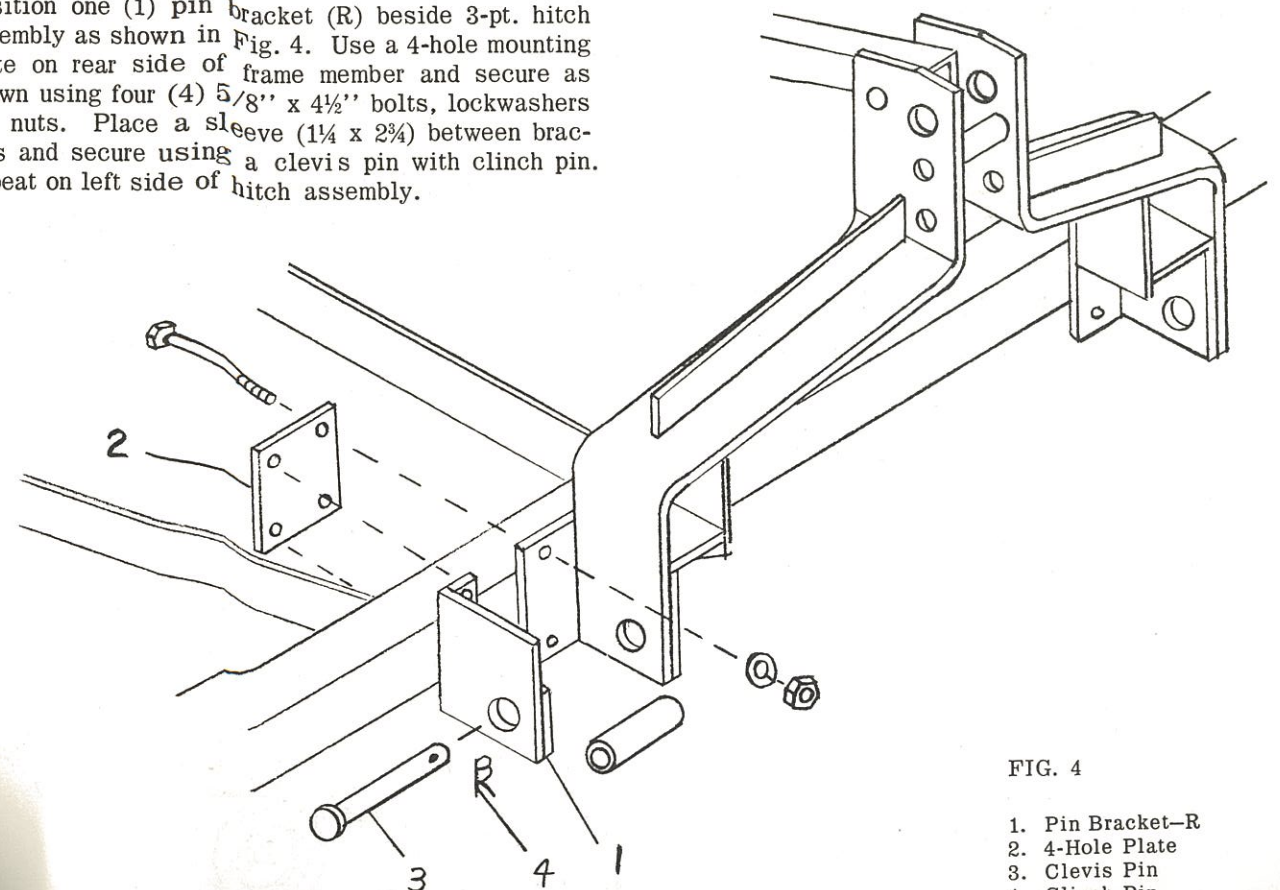
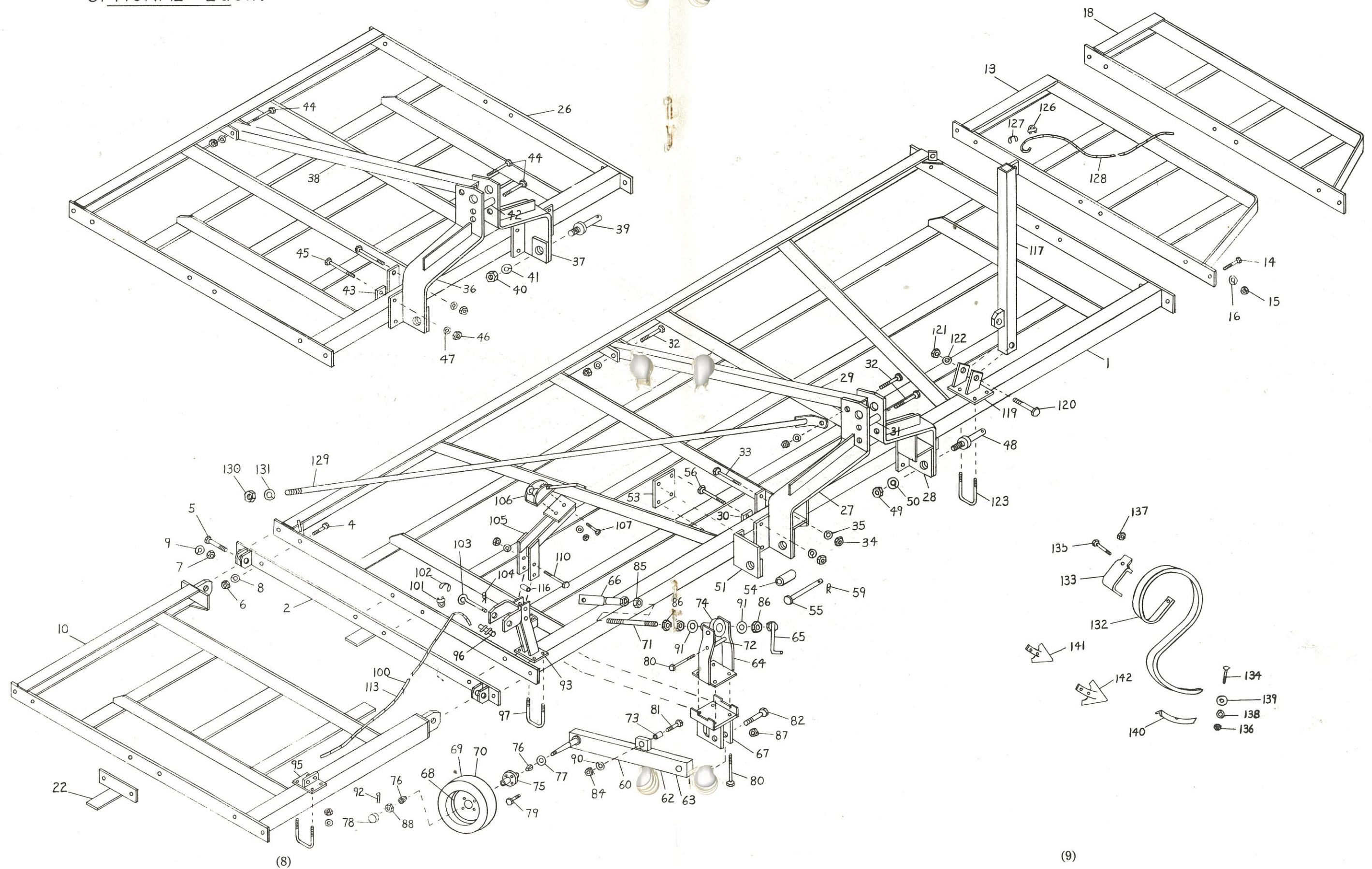


FIG. 4

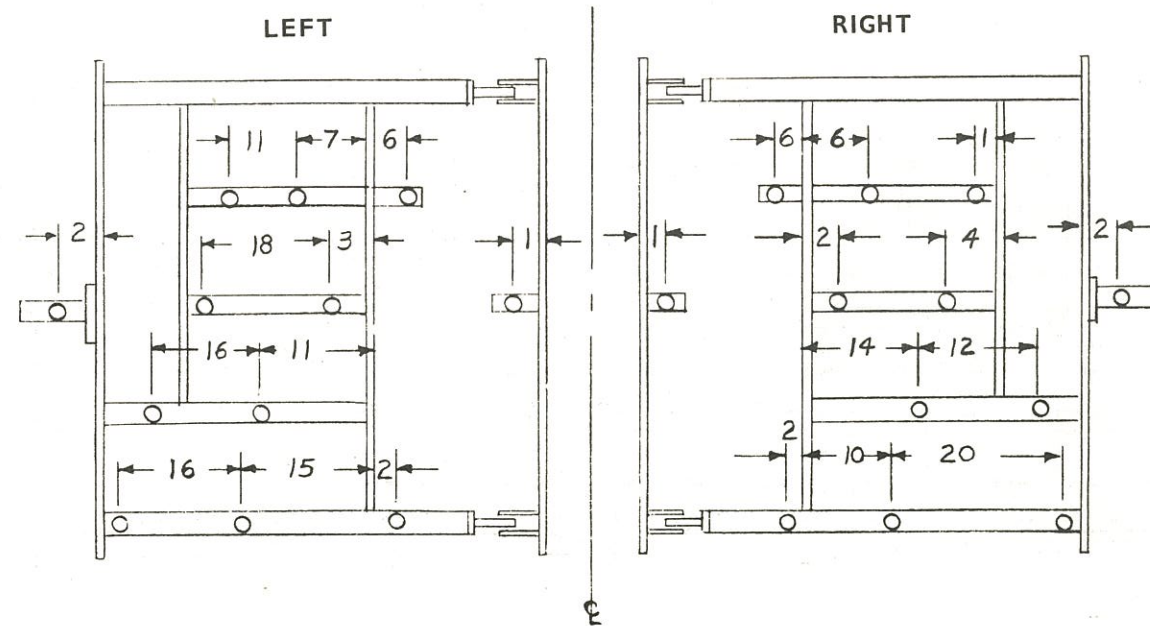
1. Pin Bracket—R
2. 4-Hole Plate
3. Clevis Pin
4. Clinch Pin

SPRING-TINE CULTIVATORS & OPTIONAL EQUIP.

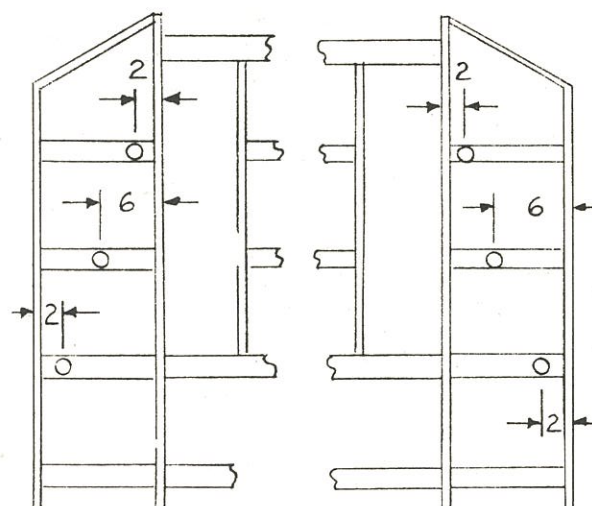


TINE SPACING - 4"

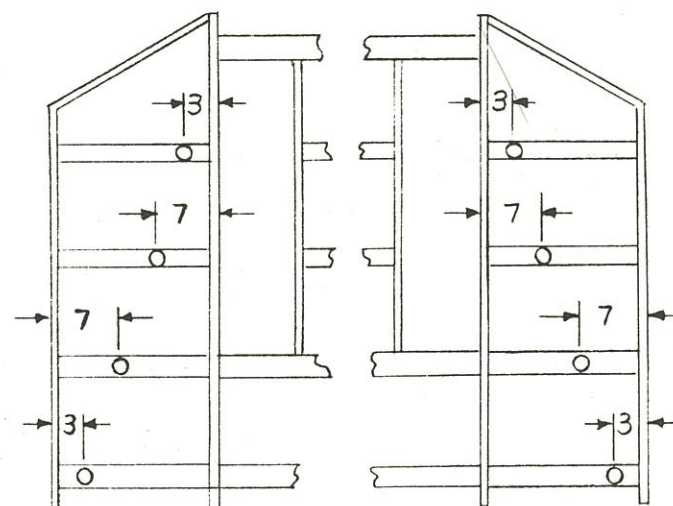
WING FRAMES AND 6" EXTENSIONS



1' EXTENSIONS



1 1/2' EXTENSIONS



(WHEN USED WITH WINGS)

HYDRAULIC WING LIFT ASSEMBLY (OPTIONAL)

A. Position an arm bracket-r on top of front frame member as shown in Fig. 5. Secure using two (2) 1/2" U-bolts, lockwashers and nuts (U-bolt set on outside of frame cross brace). Attach a lift arm to arm bracket as shown in Fig. 5. Secure with a 3/4" x 4" bolt, lockwasher and nut. Insert one end of cable 5/16 x 76 lg. into top lug hole on lift arm (after inserting cable thimble). Secure with two (2) cable clamps. Opposite end of cable is to be inserted into outside hole of cable bracket on wing frame. Use a cable thimble in bracket hole before securing cable with two (2) clamps. Repeat procedure on opposite side. When wing lift is used, lock wings in upright position using same clevis pin holding short wing cable to wing stop.

B. Extend a standard 16" cylinder and position same between lugs on lift arms. By closing the cylinder, wing sections will be raised to a 90 degree angle with main frame.

Caution: Wing sections should be raised slowly with hydraulic cylinder (or manually) when raised for the first time. This will prevent wings from being pulled past required position in wing stops. To adjust for proper cable length, lock both wings up and into wing stops with wing stop clevis pin. In this position, cylinder should be **closed** and cable should be drawn up and clamped secure.

C. When wings are lowered for field use, attach short wing cable back to wing stop. This will prevent wings from hanging on lift arms in field operation.

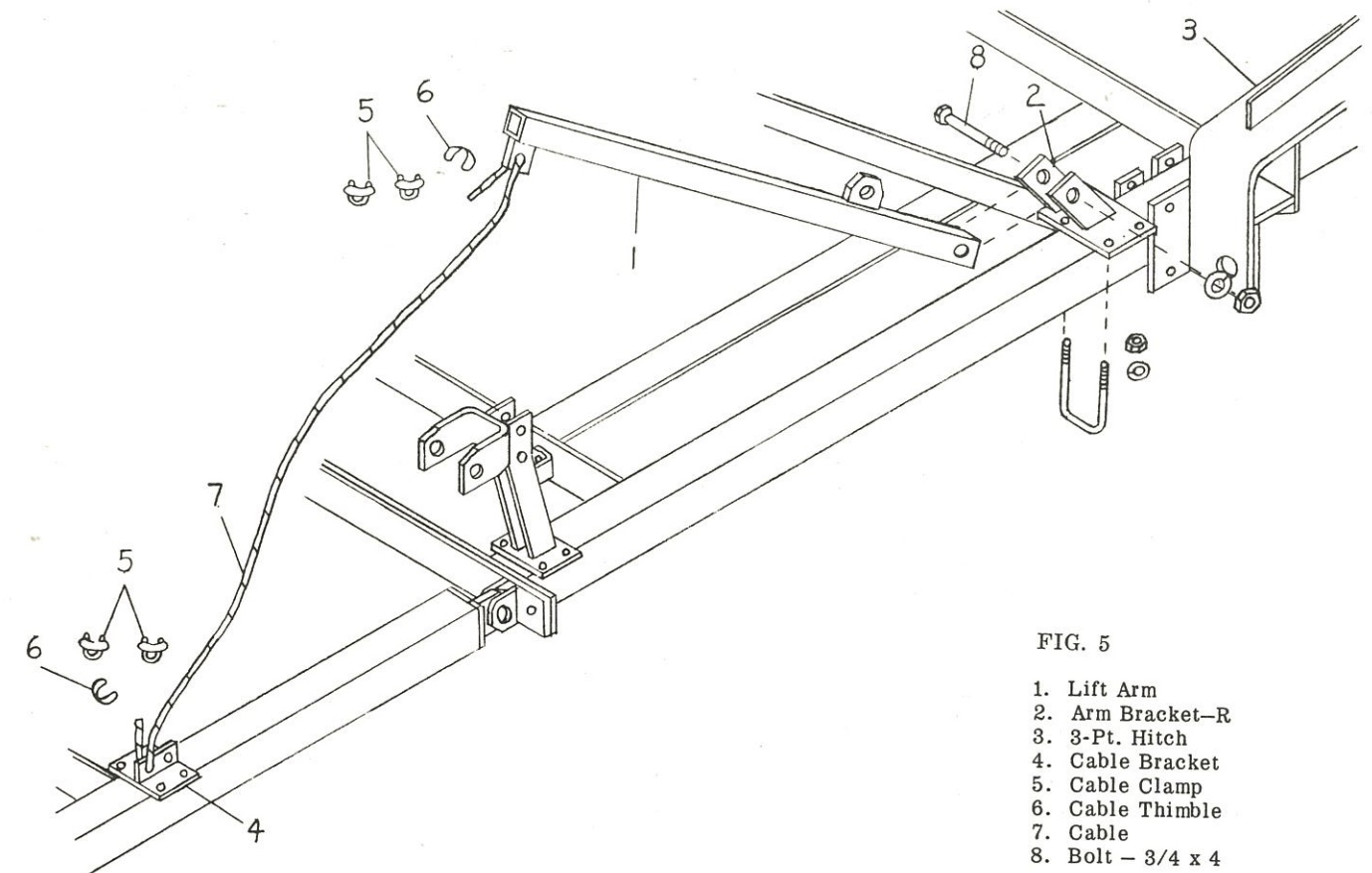


FIG. 5

1. Lift Arm
2. Arm Bracket-R
3. 3-Pt. Hitch
4. Cable Bracket
5. Cable Clamp
6. Cable Thimble
7. Cable
8. Bolt - 3/4 x 4

MECHANICAL WING LIFT ASSEMBLY (OPTIONAL)

Begin by inserting two (2) sleeves between top two holes of wing stop bracket. Next place a lift stand over wing stop and secure with two (2) 1/2" x 3" bolts, lockwashers and nuts. The winch is bolted to lift stand with two (2) 3/8" x 1" bolts, lockwashers and nuts as shown in Fig. 6. Next insert a cable thimble into outer hole of cable bracket, feed cable through hole and secure with two (2) clamps. Attach opposite end of cable to winch.

Before lifting wing, remove clevis pin and end of short wing cable from wing stop. Use same clevis pin to lock wing in upright position. Re-attach short wing cable to wing stop when using cultivator in the field.

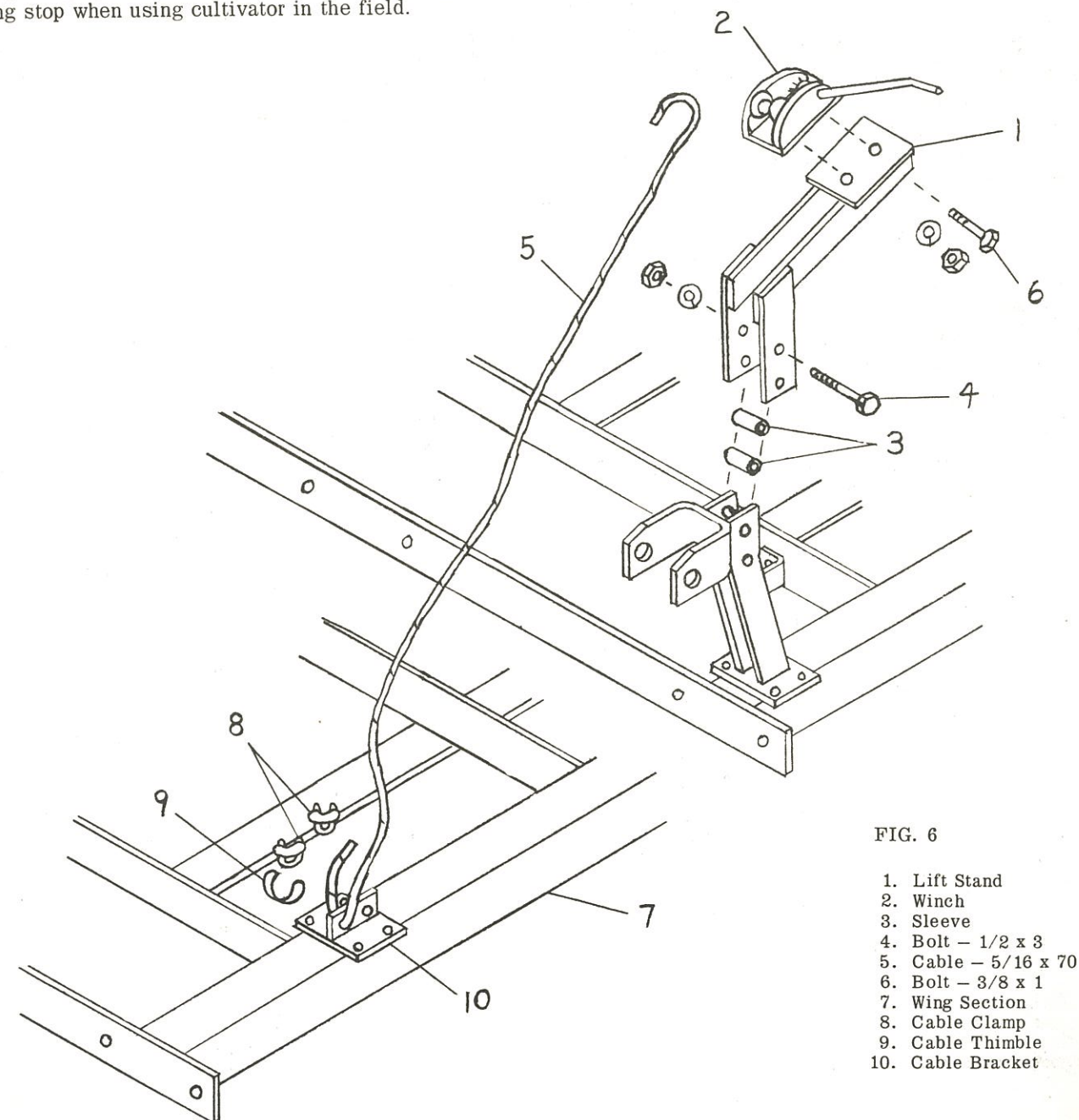


FIG. 6

1. Lift Stand
2. Winch
3. Sleeve
4. Bolt - 1/2 x 3
5. Cable - 5/16 x 70
6. Bolt - 3/8 x 1
7. Wing Section
8. Cable Clamp
9. Cable Thimble
10. Cable Bracket

OPERATING INSTRUCTIONS

ATTACHING FIELD CULTIVATOR TO TRACTOR

Proper adjustment of the tractor hitch arms are important to the operation of the cultivator.

When using gauge wheels to control the operating depth of the cultivator, adjust both gauge wheels to the same depth. Then lengthen or shorten upper hitch link arm until the main frame of the cultivator is running level and all teeth are penetrating to the same depth.

If the tractor is equipped with hydraulic depth control, refer to the tractor operating manual for instructions on how to lock out the system to allow the gauge wheels to control the operating depth.

CAUTION: Be certain that tractor front end be sufficiently weighted to compensate for rear load when needed.

IMPORTANT: All hydraulically elevated equipment must be locked to prevent accidental lowering or must be lowered to the ground when making adjustments or when equipment is idle.

FIELD OPERATION

Select proper speed (from 3½ to 7 M. P. H.) for best cultivation results.

Speed should be reduced at the ends of the field and turning should be augmented by use of the tractor brakes. Do not make high speed turns at any time.

Always raise the cultivator teeth completely out of the ground when backing up. This will prevent spring shank breakage.

LUBRICATION

Under normal conditions, the wheel bearings are greased each year. Check the bearings for end play and adjust if necessary.

TRANSPORTING THE UNIT

When transporting a cultivator with extensions, make sure ends of cultivator are raised and secured in wing stops if so equipped.

IMPORTANT: Whenever transporting farm implements on public roads, it is the responsibility of the operator to abide by the state laws pertaining to wide loads, road speeds, safety lighting protection. The slow moving vehicle sign can be attached at any desired location on the frame of cultivator.

STORAGE

Proper rust prevention treatment of the cultivator before placing in storage will lengthen life of machine and assist in efficient operation.

For maximum protection, store in a dry, well protected place.

Clean unit thoroughly and repaint spots where paint has worn. Apply a thin coat of oil to shovels or teeth to prevent rust.

Inspect machine for worn or damaged parts and replace if necessary.