

REPAIR PARTS CATALOG
and
OPERATOR'S MANUAL

FOR

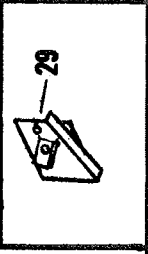
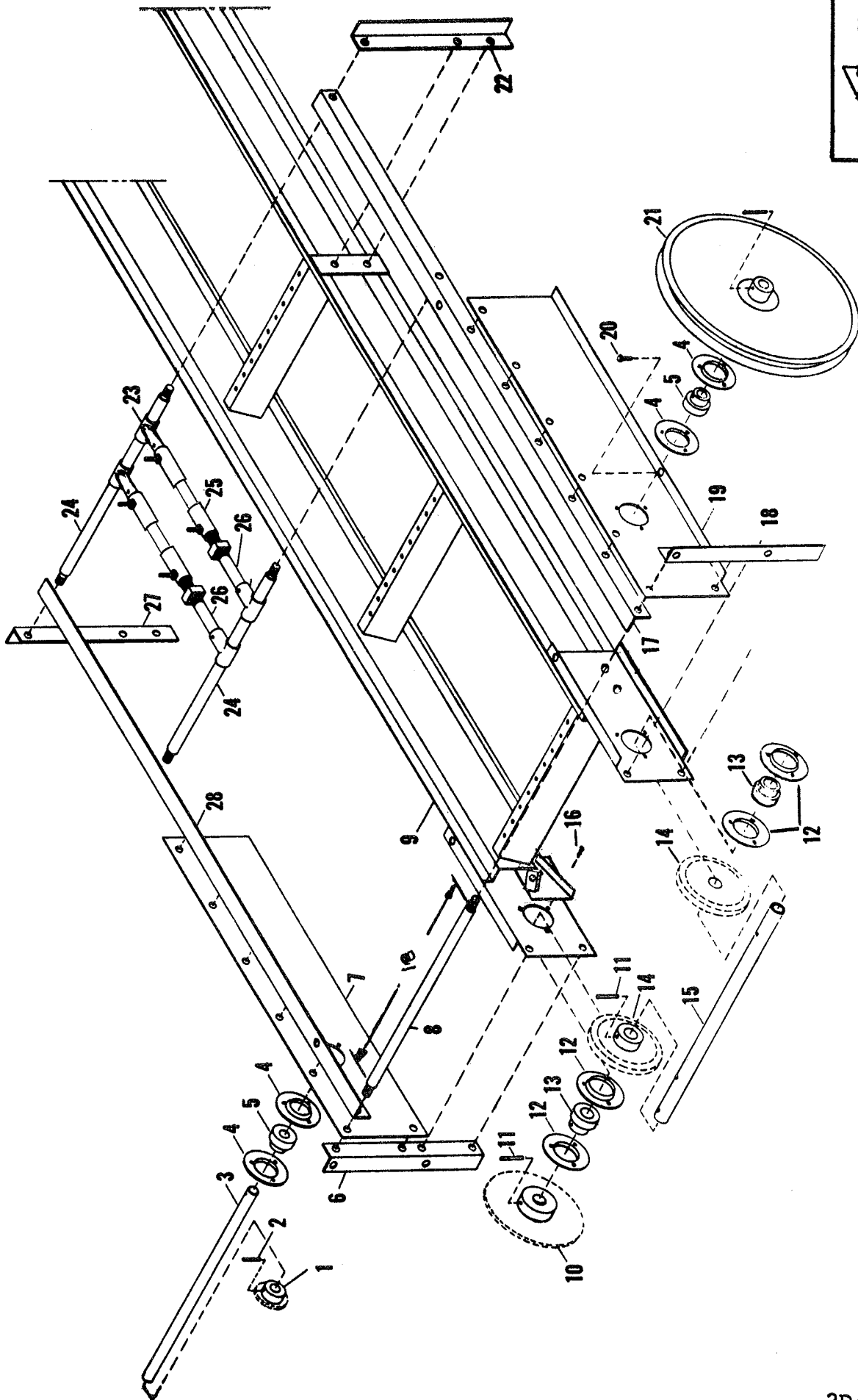
Brillion

MODEL BFL

BUNK FEEDERS

ALL PARTS NOT LISTED ARE STANDARD HARDWARE

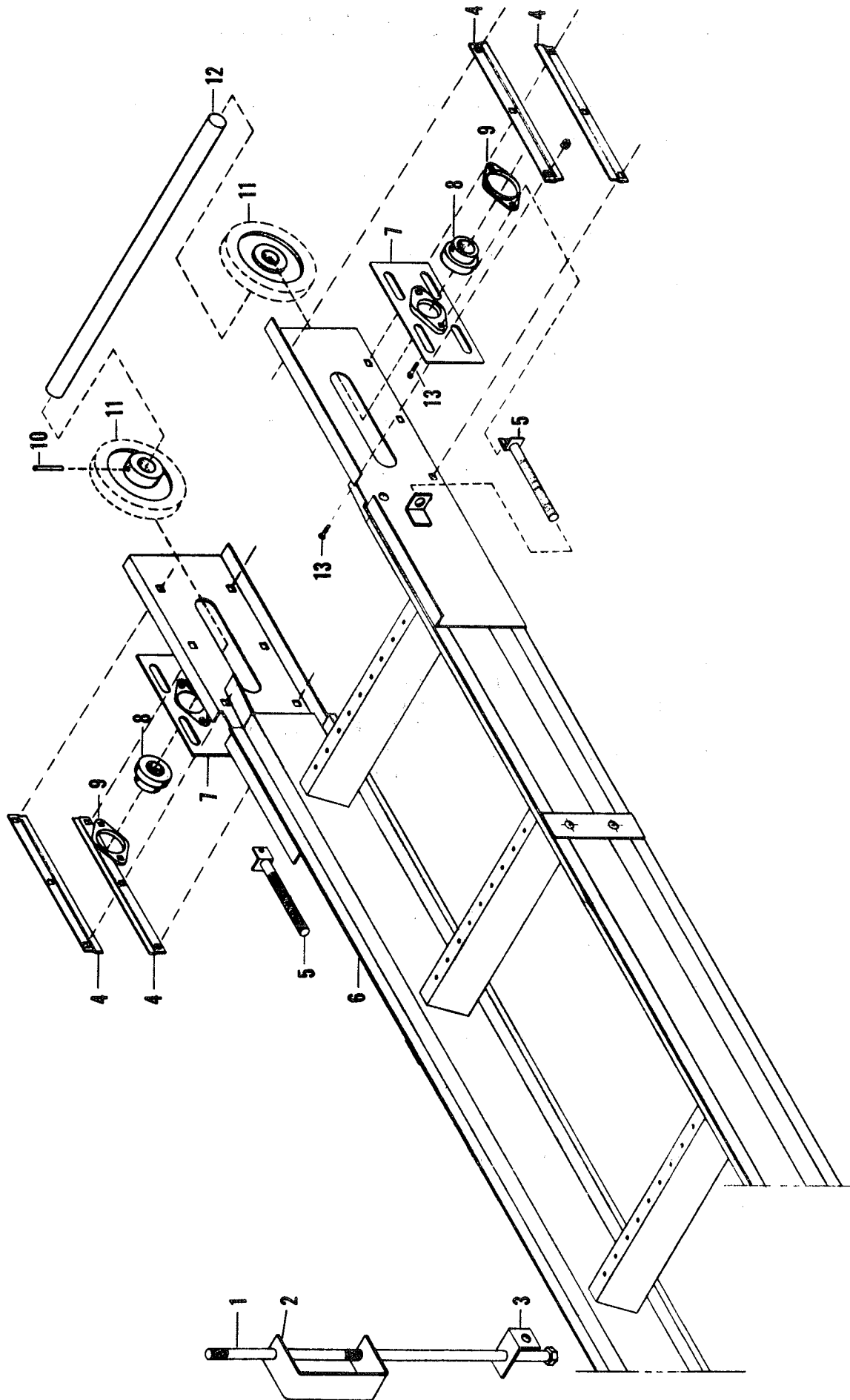
BRILLION IRON WORKS, INC.
Brillion, Wisconsin, U. S. A.



DRIVE SECTION ASSEMBLY

Index No.	Part No.	Description	Weight
1	1D-585	Sprocket - 14 Teeth	
2	1D-604	Roll Pin (3/16 x 1-1/2" Long)	
3	1D-661	Drive Shaft (For 1/8" Shear Pin)	3.0
		Model BFL-01, -01	
	3D-157	Drive Shaft (For 3/16" Shear Pin)	3.0
		Model BFL-03, -04, -05	
4	1D-599	Flangette	
5	1D-598	3/4" Bearing & Collar	
6	2D-851	L.H. Rear Support Post	
7	1D-656	L.H. Side Panel	
8	1D-666	Tie Rod	
9	1D-569	Drive End Track Section, BFL-01, -01, -03	
	3D-654	Drive End Track Section, BFL-04, -05	
10	1D-584	Sprocket - 48 Teeth	
11	7C-305	Roll Pin (1/4 x 2-1/4" Long)	
12	9C-601	Flangette	
13	9C-627	1" Bearing & Collar	
14	1D-590	Sprocket - 10 Teeth	
15	1D-660	Drive Shaft	
16	5C-761	Carriage Bolt (5/16 x 3/4" Long)	
17	1D-686	R.H. Frame Angle	
18	2D-850	R.H. Rear Support Post	
19	1D-655	R.H. Side Panel	
20	1C-259	Capscrew (1/4 x 1/2" Long)	
21	1D-658	Sheave (16" O.D.) (For 1/8" Shear Pin)	
		Model BFL-01, -02	
	3D-158	Sheave (16" O.D.) (For 3/16" Shear Pin)	
		Model BFL-03, -04, -05	
22	1D-682	R.H. Front Support Post	
23	1D-931	Tee Clamp	
24	1D-665	Tie Rod	
25	6D-819	Motor Mount	
26	1D-680	Threaded Rod	
27	1D-683	L.H. Front Support Post	
28	1D-687	L.H. Frame Angle	
29	3D-650	L.H. Guide - (Model BFL-04)	
*	3D-651	R.H. Guide - (Model BFL-04)	
*	2D-212	Motor Sheave (5/8 Bore)	
*	1D-597	Motor Sheave (7/8 Bore)	
*	1D-602	Roller Chain	
*	1D-601	V-Belt	

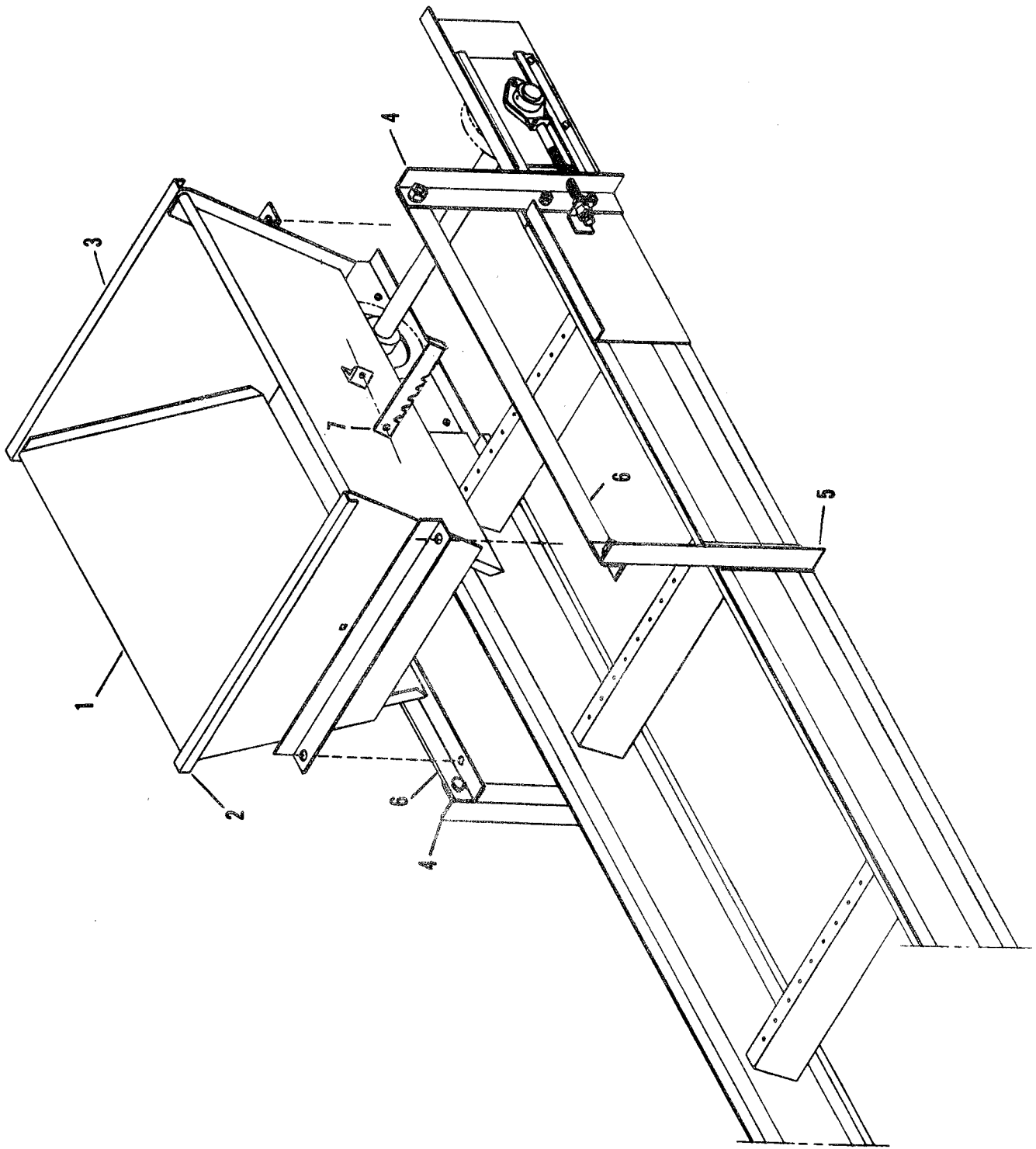
*Parts not illustrated



2D-818

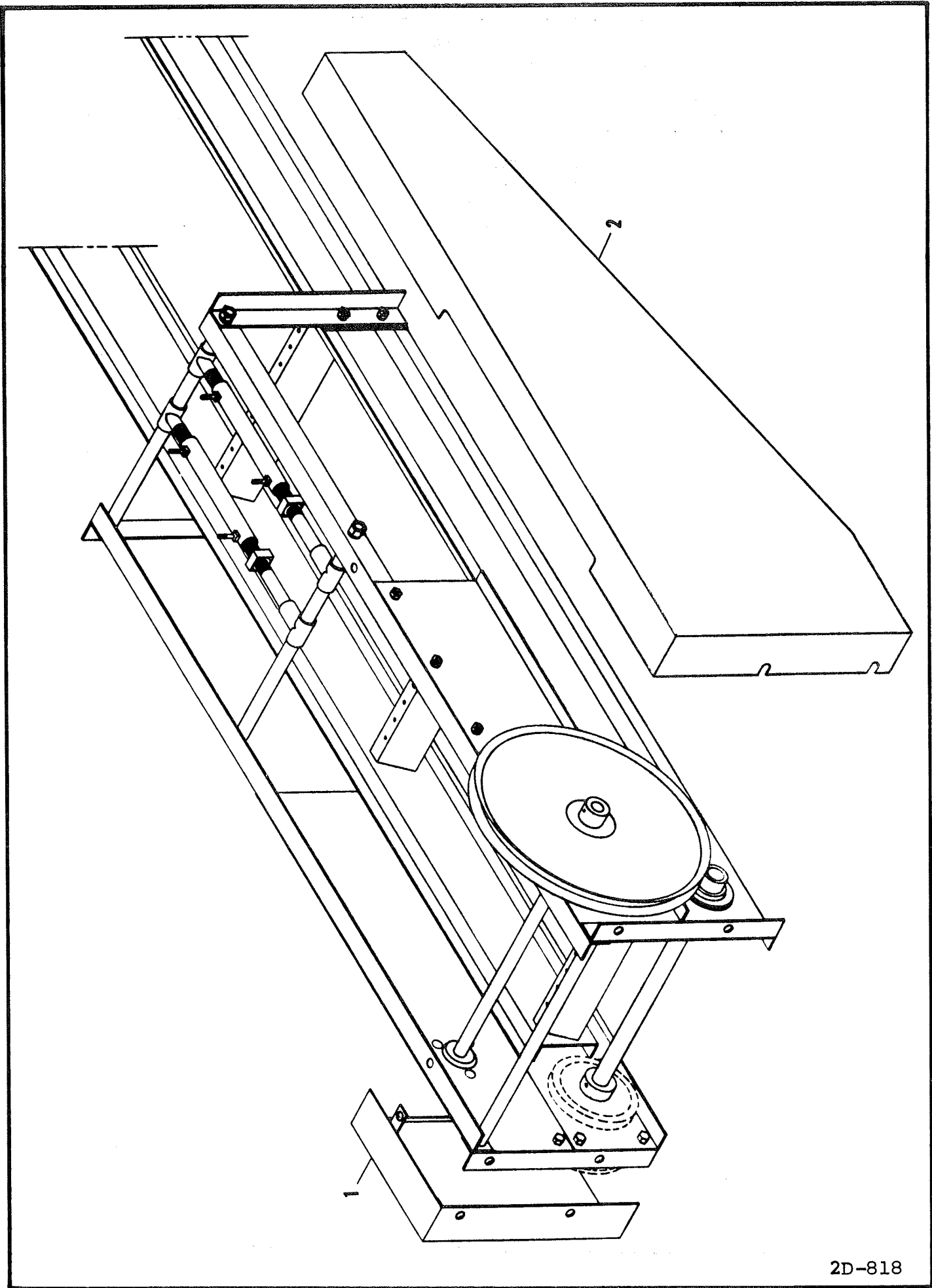
TAKE-UP SECTION ASSEMBLY

Index No.	Part No.	Description	Weight
1	1D-678	Bolt	
2	2D-242	Support Bracket	
3	1D-681	Support Clip	
4	1D-579	Take-Up Guide	
5	1D-667	Adjusting Rod	
6	2D-555	Take-Up End Track Section	
7	1D-600	Take-Up Base Plate	
8	9C-627	1" Bearing & Collar	
9	1D-617	Flangette	
10	7C-305	Roll Pin (1/4 x 2-1/4" Long)	
11	1D-590	Sprocket - 10 Teeth	
12	1D-659	Driven Shaft	
13	5C-761	Carriage Bolt (5/16 x 3/4" Long)	
*	1D-568	Intermediate Track Section	
*	1D-616	Conveyor Assembly 42' Long	
*	1D-615	Conveyor Assembly 20' Long	
*	1D-571	Conveyor Slat	
*	2D-831	Chain Link - #45 Detachable Steel Chain	
*	2D-149	Attachment Link - L. H. (#45-G27-L)	
*	2D-150	Attachment Link - R. H. (#45-G27-R)	
*	4D-341	Conveyor Slat Assembly (With 2D-149 & 2D-150 Links Attached)	



HOPPER ASSEMBLY

Index No.	Part No.	Description	No. Req'd.	Weight
1	5D-31	Hopper Side Panel	2	7.2
2	5D-29	Front Hopper Panel	1	6.9
3	5D-28	Rear Hopper Panel	1	7.4
4	1D-682	R. H. Front Support Post	2	1.5
5	1D-683	L. H. Front Support Post	2	1.5
6	2D-567	Angle	2	2.9
7	5D-32	Adjustment Lever	2	.4



2D-818

DRIVE SECTION GUARDS

Index No.	Part No.	Description	No. Req'd.	Weight
1	1D-744	Chain Guard	1	4.7
2	1D-743	V-Belt Guard	1	13.7
3	8D-737	Belt Guard Bracket	1	.4

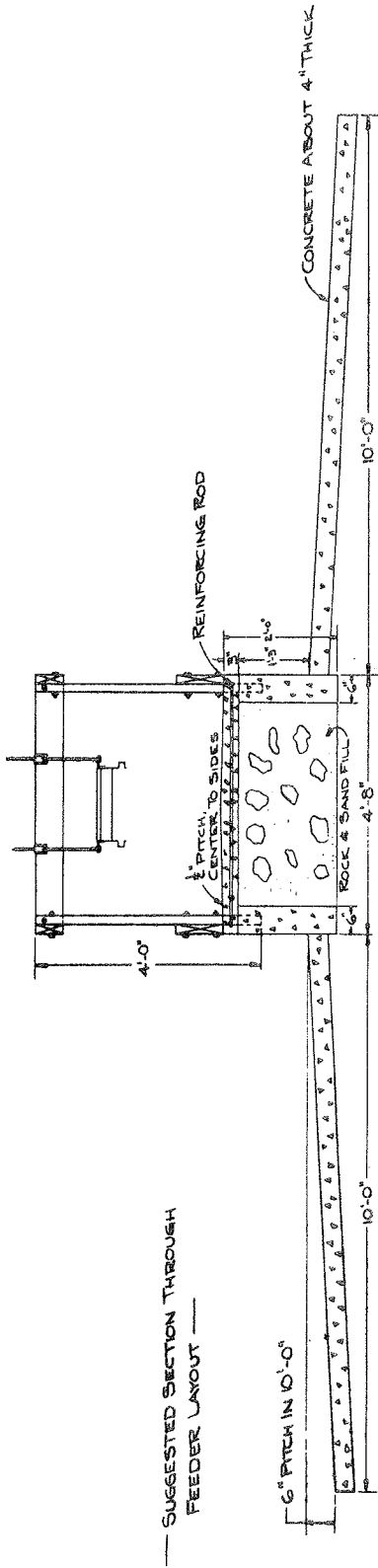


Figure 1

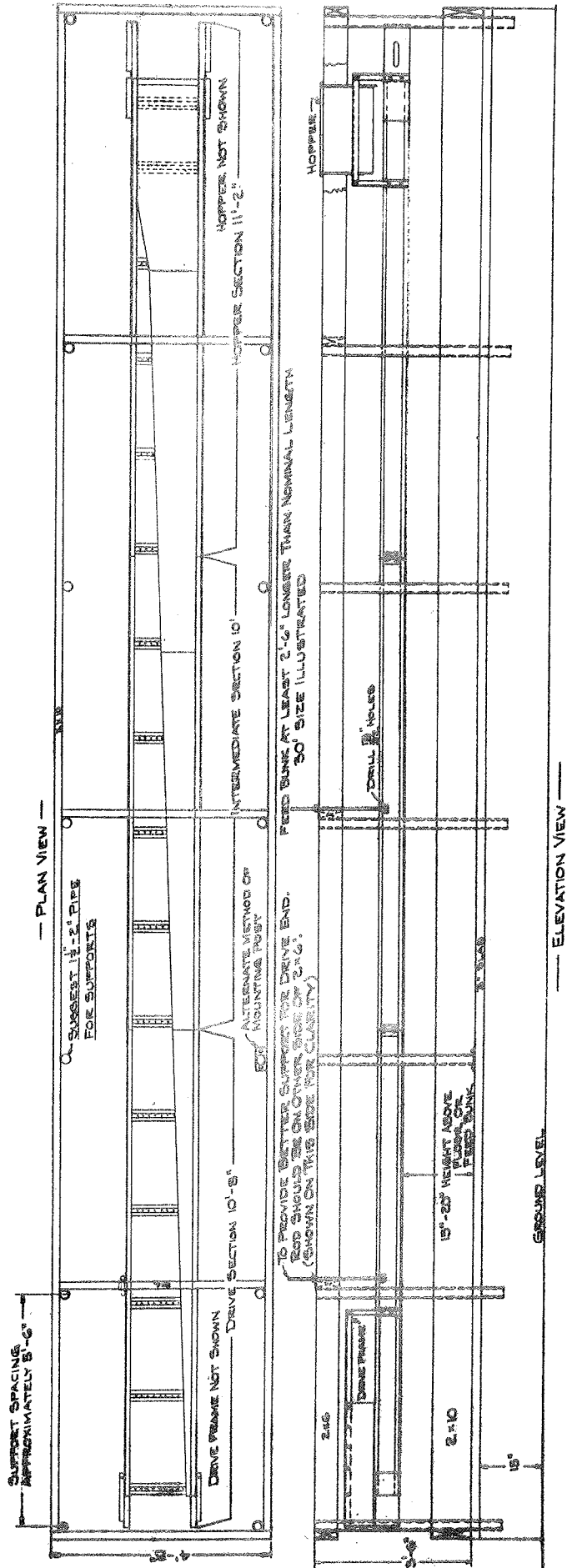


Figure 2

BRILLION MODEL BFL BUNK FEEDER

The Brillion Model BFL Bunk Feeder is constructed with the best materials and workmanship available. It is designed for ease of assembly, installation and operation.

Future problems can be avoided by following carefully the setting up and operating instructions.

Study the operator's manual and follow carefully the instructions regarding adjustments before operating the machine.

SPECIFICATIONS

Drive Unit: Speed reduction by V-belt from motor to jackshaft, and roller chain from jackshaft to conveyor drive shaft. Shear pin protected.

Bearings: Precision ball bearings with lifetime lubrication.

Recommended Motor Sizes: 1/2 h.p. - 20' to 40'; 3/4 h.p. - 50' to 60';
1 h.p. - 70' to 80'; 1-1/2 h.p. - 80' to 120'.

Hopper: 22" long x 14" deep. Standard equipment. Mounts directly above conveyor. Adjustable sides.

Track Sections: 20-1/8" wide. Drive section: 10'8" long. Take up section: 11'2" long. Intermediate sections: 10' long.

Slat Conveyor: 18-1/8" wide. Length of slat: 15". #45 steel detachable chain.

Tapered Bed: Special exterior plywood, permanently faced with a high density combination of fiber and phenolic resins.

SETTING UP INSTRUCTIONS

Refer to pages 2, 4, 6 & 8 in the parts list for identification and relative positions of parts for ease in assembly.

Refer to Figure 2, page 10 for positioning and suspending feeder in bunk.

ASSEMBLY OF FEEDER:

1. Place 2 x 4's (or other firm supports) across the feed bunk approximately every 5 feet.
2. Place hopper (take-up) track section in position over two 2 x 4's at the end of the feed bunk next to the silo (Figure 2).
3. Place intermediate track sections in position next to the hopper section as shown in Figure 2. Support each section on two 2 x 4's. Note that cross members are equally spaced the full length of the feeder.
4. Follow above with the drive track section.
5. Bolt track sections together using 3/8" x 3/4" long cap-screws, lock washers and nuts. Make sure that the top edges of the tracks align with each other to provide a smooth joint for the chain to pass over.
6. Assemble the drive unit as shown on page 2. **LEAVE ALL BOLTS LOOSE UNTIL ROLLER CHAIN HAS BEEN INSTALLED. THEN TIGHTEN ALL BOLTS.**
7. Assemble the hopper frame-work as shown on page 6. Do not attach the hopper at this point.
8. Assemble the take-up unit as shown on page 4. Only ONE sprocket (1D-590) is pinned to the 1D-659 shaft.
9. Align the assembled track sections from end to end, using a chalk line. Starting at the hopper end, assemble the **SILAGE FEED BOARD** to the track sections as shown in the plan view of Figure 2. Feed boards are keyed together with 1/8" x 7/8" keys. Position the beveled end of the first board in line with the level end of the hopper track. After positioning each board, drill from underneath with a 3/16" drill through holes in the board supports. **DO NOT DRILL THROUGH BOARD.** Attach boards with wood screws included.

INSTALLING FEEDER IN BUNK

1. Suspend feeder from feed bunk cross members, starting approximately 5 feet from the drive end and approximately every 10 feet thereafter. Refer to Figure 2. It will be necessary to drill a 13/32 hole in each side of the track section to attach the support clips (#3, page 4). Attach the support clips with 3/8" x 3/4" long cap screws, lockwashers and nuts. Position the support clamps (#2, page 4) over the feed bunk cross members and hold in place with long bolt (#1, page 4), placing 1/2" washer and nut on from top.
2. Level the suspended feeder from side to side and end to end. Align with chalk line from end to end both horizontally and vertically.
3. Assemble conveyor chain to feeder. Assemble on top of feeder, feeding over hopper end sprockets into lower track. Draw completely through lower track as each conveyor chain section is attached. When completely assembled, take up chain looseness with chain take-up. Take up both sides evenly. Standing at the drive end, advance the conveyor chain by turning the large pulley by hand. Observe the conveyor chain as it leaves the drive sprockets. If the conveyor chain feeds straight onto the lower track, with no tendency to buckle or follow the sprocket around, it is probably tight enough. Check again with the chain being advanced by the motor.
4. Assemble the hopper to the hopper frame as shown on page 6.
5. Attach the motor to the motor mounts. Assemble the motor sheave to the motor, flush with the end of the shaft, with the hub toward the motor. Place the V-belt over both sheaves and align. Align by loosening set screws in the T-clamps, positioning the motor and tightening set screws. Tighten V-belt by taking up on the 3/4" nuts on the threaded support rods.

NOTE: BE SURE MOTOR SHEAVE TURNS IN COUNTER-CLOCKWISE DIRECTION BEFORE ATTACHING V-BELT.

6. Attach chain guard and V-belt guard to drive unit. V-belt guard is held in place with wing nuts for easy removal. Attach the V-belt guard bracket to the guard - see page 8 for identification. Install capscrews, flat washers, and wing nuts before attaching V-belt guard.

ADJUSTMENTS

Hopper: The adjustment lever toward the straight side of the feed board should rest in the first notch on the 2D-567 angle, or the notch next to it, for feeding silage. The opposite side panel should be moved in until the silage feeds relatively uniform from one end of the feeder to the other.

In feeding free flowing grain, move both of the side panels to the outermost notches.

Conveyor: The conveyor chain tightness is adjusted by taking up on the adjusting screws on the take-up end of the feeder. Take up both sides evenly. When adjustment screw is fully extended, remove links from the conveyor chain to provide further adjustment.

Feeder Height: The feeder can be leveled from side to side, from end to end, and raised and lowered by taking up or backing off on the nut supporting the support bolt.

LUBRICATION

Bearings are pre-lubricated and require no further lubrication.

A dry lubricant such as molybdenum disulfide or graphite can be used between the chain and the track sections. This should reduce wear between these parts.

An all purpose grease may be used on the conveyor sprockets to reduce wear between sprockets and conveyor chain.

Roller chain is made of oil-impregnated sintered rollers and requires no further lubrication.

MAINTENANCE

If the board facing (fiber and phenolic surface) appears to be wearing through, resurface with two coats of spar varnish.

INSTRUCTIONS FOR BUILDING AND INSTALLING WIND SHIELDS ON BRILLION BUNK FEEDERS

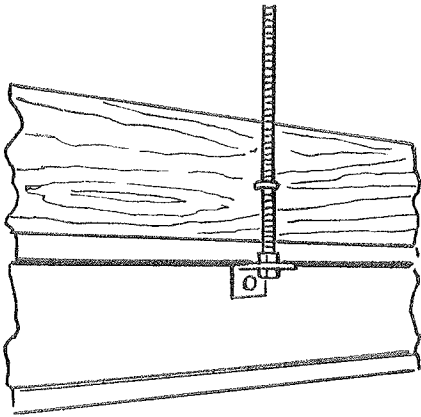


FIGURE 1

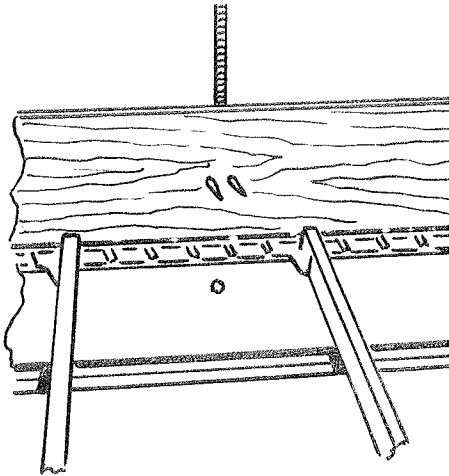


FIGURE 2

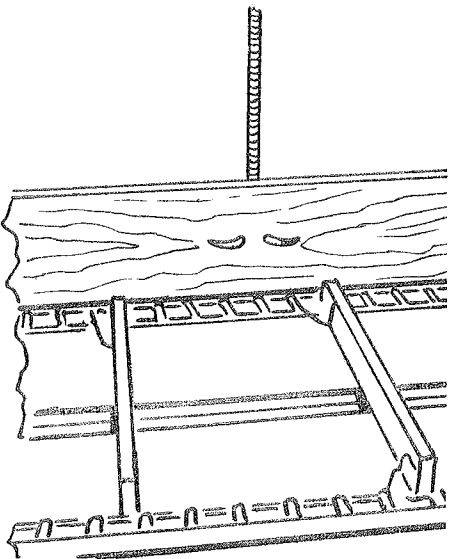


FIGURE 3

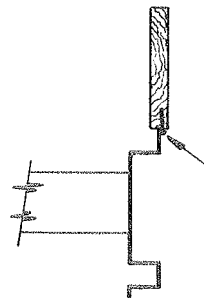
Although the wind usually does not create a problem, it is a simple matter to build a wind shield if needed. The common materials needed are available at any lumber yard or farm store. You can install a wind board on either or both sides of the track section, but usually it is sufficient to shield only the side from which the prevailing winds blow.

Materials needed are:

- (a) 3/4" exterior plywood or 1" lumber 4" to 12" wide.
- (b) 3" bright steel staples - one or two are required per hanger rod. If lumber used is 6" wide or less, only one staple is required per hanger.
- (c) Wood strips or cleats to join the end of the boards together.

Starting at the hopper end, position the first board on the upper edge of the track section, up tight to the hanger rod. Drive a staple (pre-drilling holes for the staples may be desirable) through the board, straddling the hanger rod. (See figures one and two.) Using a pair of pliers, spread the points of the staples and clinch with a hammer and weight. (See figure three.) Proceed to the next hanger and position each board in place following the same procedure until all the boards are positioned. Splice the board ends together using wood strips or cleats made from scraps of lumber.

To prevent interference between the windboards and the conveyor chain in case of board warpage, drive a small nail or screw into the bottom edge of the board midway between the hanger rods. See sketch #4.



Insert nail or screw as shown

FIGURE 4

