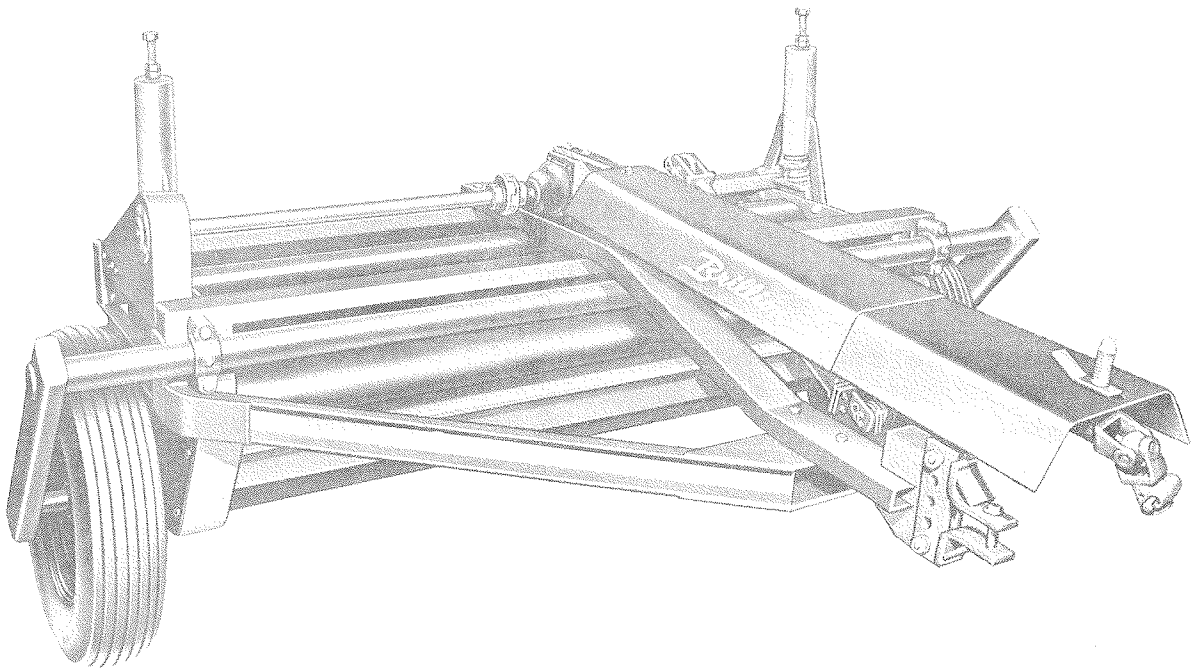


OPERATOR'S MANUAL

Brillion

HAY CONDITIONER



BRILLION IRON WORKS, INC.
BRILLION, WISCONSIN

6C-169

Brillion

HAY CONDITIONER

The Brillion Hay Conditioner is constructed with the best materials and workmanship available. The machine is factory adjusted, as near as possible, to assure proper field operation.

Many future difficulties can be avoided by following the operating and maintenance instructions and by correctly adjusting and lubricating the machine accordingly.

Study the Operators Manual and follow carefully the instructions regarding adjustments before operating the machine.

LOCATION REFERENCE

"Right" and "Left", "Front" and "Rear" refer to the operators "Right" and "Left", "Front" or "Rear" when he faces the same direction as the machine is traveling.

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HAY CONDITIONER SPECIFICATIONS

Over-all width-----8 Ft. 8 In.

Over-all length-----6 Ft. 3-3/4 In.

Maximum height-----3 Ft. 4 In.

Weight (less tires & tubes)-----1,348 #

Hitch-----Trail-behind

Wheels

Tread Width-----7 Ft. 6-1/2 In.

Tire Size-----15 In.

Wheel Bearings-----Timken Tapered Roller

Drive-----Power Take-Off

Pickup Width-----For 7' Mower

Pickup-----Exclusive slatted
reel with solid
feed roll

Gear Box

Gears-----Heat treated alloy
steel machine cut

Bearings-----Timken Tapered Roller

Lubrication-----Continuous Oil Bath

Other Bearings

Drums

Pickup Reel-----Self Aligning Sealed-
Drive Shaft for-life ball bear-
ings

Chain Idler-----Torrington needle
bearing

Conditioning Rolls-----Adjustable spring
pressure

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BRILLION HAY CONDITIONER

Your conditioner is shipped to you almost fully assembled. You will receive as separate assemblies, (1) P.T.O. shield assembly, (2) spring cage assemblies, (3) screw jack assembly (optional), (4) wheel and axle assembly, (5) P.T.O. shaft assembly, and (6) fluffer assembly.

SETTING UP INSTRUCTIONS

Spring Cage Assemblies: There are two spring cage assemblies. Figure 1 shows the left hand cage. Each assembly will be installed with front arm belted outside of spacer block welded on side plate. Letter A shows the proper installation of the left hand cage. The spring cage assemblies are shipped, wired together, as shown in Figure 2.

To mount the spring cage assemblies, first remove the tie wire. Next place the spring on top of the bearing support plate as shown in Figure 1. Then place the spring plug in the top of the spring. Next screw the adjusting bolt out of the spring cage until the point of the adjusting bolt protrudes into the spring cage. Now place the spring cage over the spring and assembled parts, and attach with the bolts provided as shown in Figure 1. Draw these bolts up finger tight. Now screw the adjusting bolt down until it just seats in the spring plug. Next draw the attaching bolts up tight. Now turn the adjusting bolt down until the spring begins to compress. Follow the same procedure for the other spring cage assembly.

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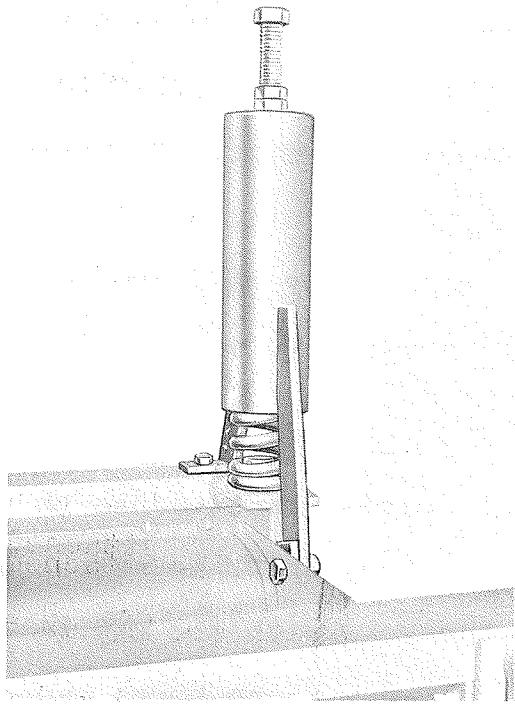


Figure 1

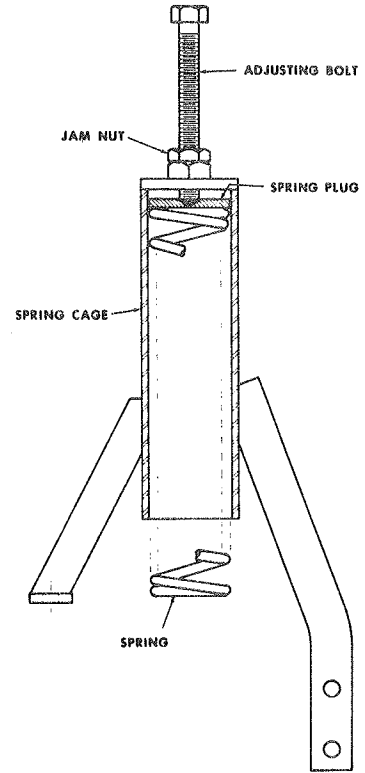


Figure 2

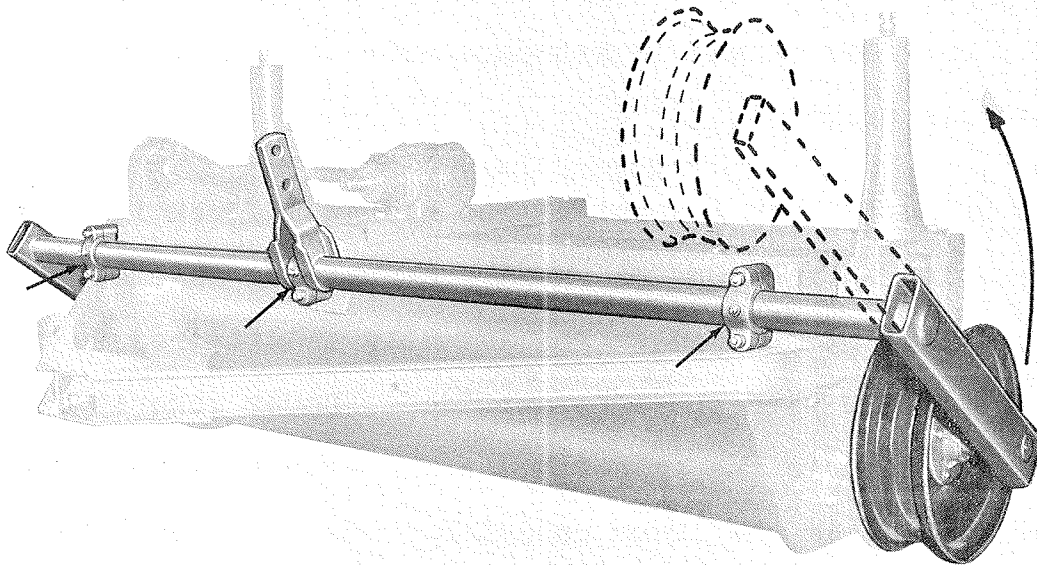


Figure 3

Wheel and Axle Assembly: The axle is attached to the machine as show in Figure 3. Remove the bearing caps at arrows, position the axle in the bearings and replace the bearing caps. To attach the wheels, rotate the axle rearward and upward until the axle arms are in the upward and forward position, where they will remain in place as shown by dotted lines. Now the wheels are easily attached with the bolts provided.

Drawbar and P.T.O. Shaft Assembly: The drawbar is attached to the main frame with the bolts provided. The P.T.O. shaft is attached to the gearbox by lining up the keyway in the yoke with the key in the shaft and fastening with the rollpin supplied. Sharp turns cause high loads in the front universal joints. Avoid sharp turns whenever possible.

P.T.O. Shield Assembly: The P.T.O. Shield mounting bracket is found packaged with the assembly. Bolt this bracket to the top of the gear box. The rear shield is attached over the stud, with the washer and cotter pin provided.

Hydraulic or Screw Jack Assembly: The hydraulic jack is assembled to yokes according to instruction sheet accompanying assembly. The screw jack is complete as shipped. The assembly is attached to the frame and axle pivot arm with the pins provided. Upper yoke is attached in the outermost hole in the axle pivot arm. Note that on the hydraulic jack, the pump is in the lower position. The screw jack can be installed either end up, so as to provide handle action to suit the operator.

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OPERATING INSTRUCTIONS

Field Operations: The Brillion Hay Conditioner is designed to be pulled directly behind the tractor. The Conditioner should follow the mower by one swath or no more than 5 minutes. The mowed hay should not be permitted to wilt before conditioning. The tractor engine should be operated at sufficient throttle opening to obtain full P.T.O. speed. Forward speed of the tractor can be up to 6-7 miles per hour.

ADJUSTMENTS

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Tractor Hitch: In heavy hay, the tractor hitch should be satisfactory as shipped. The conditioner frame should be AS LOW IN FRONT AS POSSIBLE when operating in light hay. This is done by removing the bolts and sliding the drawbar up or down in the hitch.

Shear Bolt: Your Hay Conditioner is protected from damage by foreign objects by a shear bolt. This shear bolt is a common 7/16 x 2-3/4" long bolt, with nut and lockwasher. It is located in the flexible coupler just to the right of the gearbox. Extra shear bolts are provided with the machine.

THIS BOLT IS FOR YOUR PROTECTION--REPLACE ONLY WITH COMMON MACHINE BOLTS AS DESCRIBED ABOVE. Do not use hardened bolts or pins of any kind. If the bolt seems to shear too often, look for the cause; for example, pickup reel striking ground, foreign material entering machine, or jerky or sudden engagement of P.T.O. clutch.

Tire Pressure: Tires should be inflated to not more than 15 pounds pressure for best operation. Pressures in excess of this result in excessive bouncing of the machine as it is pulled over the field.

Pick-up Height Adjustment: The pickup reel should be operated between 2" - 5" above the ground surface, depending on surface roughness and crop conditions. With a relatively smooth field surface, the pickup reel can be run as close as 2" from the ground. If the field is rough or stony, more clearance is desirable. In a heavy, fluffy crop less clearance is needed than if the crop is thin and lays close to the ground. Do not operate the pickup reel any closer to the ground than is necessary for good crop pick-up. Experience will show what is the best operating height for your crop and field conditions.

This adjustment is made with the hydraulic or screw jack. For transporting the machine, extend the jack to its maximum length.

Conditioner Roll Scraper: Scraper should be drawn snugly and evenly against the conditioner roll. The upper scraper is adjusted by taking up on the elastic stop nuts, Figure 6, Letter "A". The lower scraper (optional) is adjusted by taking up on the elastic stop nuts at letter "R". Observe that stiffener bars are provided to evenly distribute the adjusting pressure across the scraper.

Conditioner Roll Spring Pressure: Start operation with or no pressure, (3" to 4" of screw exposed). The pressure should be adjusted if it is apparent that too much or too little conditioning is being done. This can be determined by examining the hay after it has passed through the conditioner. If the stems are not cracked, more pressure can be applied by screwing down the adjusting bolts, (Figure 2)

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If the stems appear lacerated or smashed and leaves are torn from the stems, or appear bruised, the pressure should be reduced by backing off the adjusting bolts.

In legume crops, the conditioning rolls may have a slightly moist film when running. Excessive moisture indicates that the crop is being smashed rather than stems simply being cracked open. This indicates an excessive spring pressure, and the adjusting bolts should be backed off. In grasses, there may be no moisture apparent on the rolls. If the nodes are being crushed and large stems cracked, sufficient conditioning is taking place.

Excessive spring pressure also create a tendency for material to jam between the conditioning rolls, as they cannot open properly to pass bunches. Proper and adequate pressures will avoid this condition, and will give very satisfactory conditioning with minimum trouble and power consumption.

Drive Chain: The chain is made up of 108 links of ASA No. 60 roller chain. It is placed over the sprockets as shown in Figure 8. The chain should be tight enough on the sprockets so that slight slack is apparent when the chain is pulled up toward the chain shield. New chain often stretches somewhat when placed in service. Check your chain after a few hours use, and adjust if necessary. Adjustment is made by tightening the 3/8" lock nut indicated in Figure 7.

Chain looseness will make itself known by a chattering sound when the chain jumps over sprocket teeth on the upper conditioning roll.

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LUBRICATION

Axle Bearings: Use a good quality grease--lubricate for free operation every 50 hours of operation.

Universal Joint Assemblies: Lubricate daily with a good quality grease; four times daily in dusty conditions.

Idler Shaft: Located as shown in Figure 7. Lubricate every 4 hours of operation or every two hours in dusty conditions.

Gear Box: Check oil level before operation. The gear case should contain about one pint of SAE 90 oil. Change oil yearly

Conditioner Rolls: Before starting the machine, coat the conditioner rolls with used crankcase oil and allow the machine to idle. This will permit smoother operation of the rolls against the scrapers. Coat the conditioner rolls with oil if the machine is to stand any length of time. At the end of the conditioning season, the conditioner rolls should be coated with oil before storage.

Drive Chain: Lubricate at least twice daily by brushing on a good grade of oil.

Bearing Support: Upper roll bearing supports should be lubricated daily with a good grade of oil between the bearing supports and the side plates.

MAINTENANCE

Before operating machine, check all bolts and nuts for tightness. Check again after first eight or ten hours of operation, and again after the next ten hours. Thereafter check weekly.

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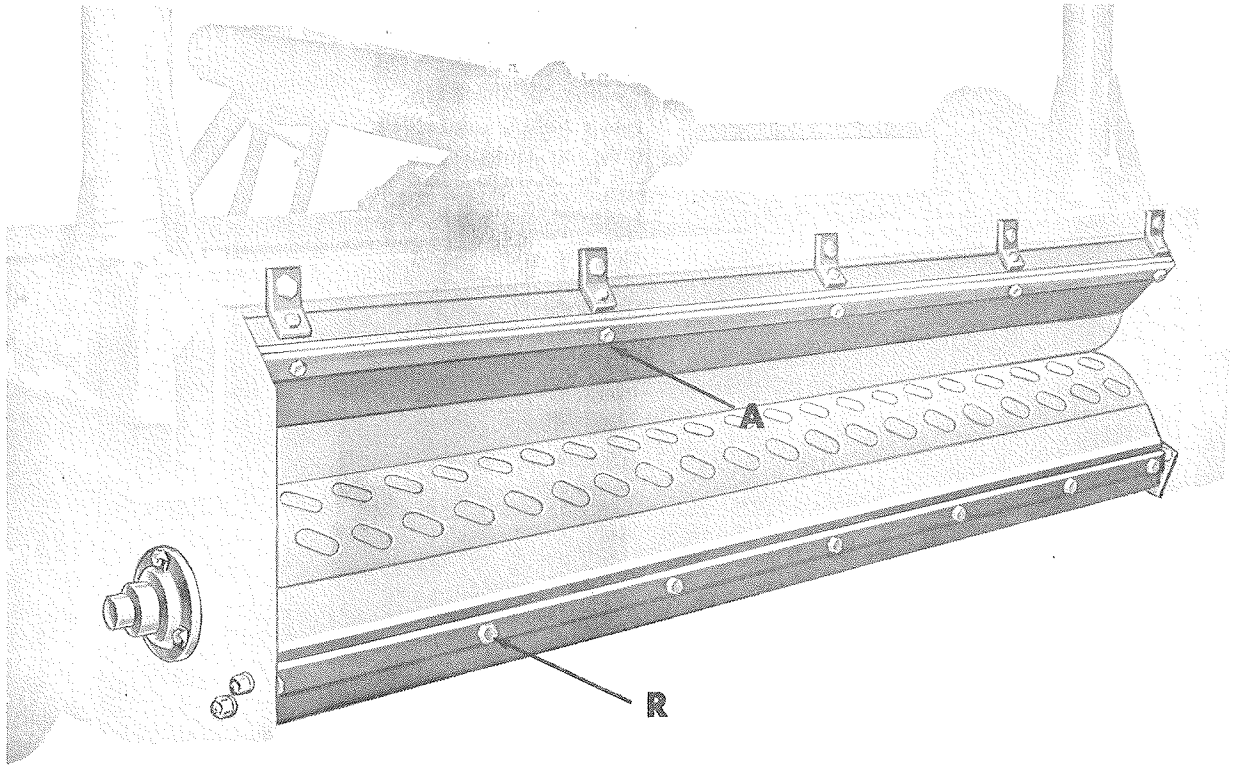


Figure 6

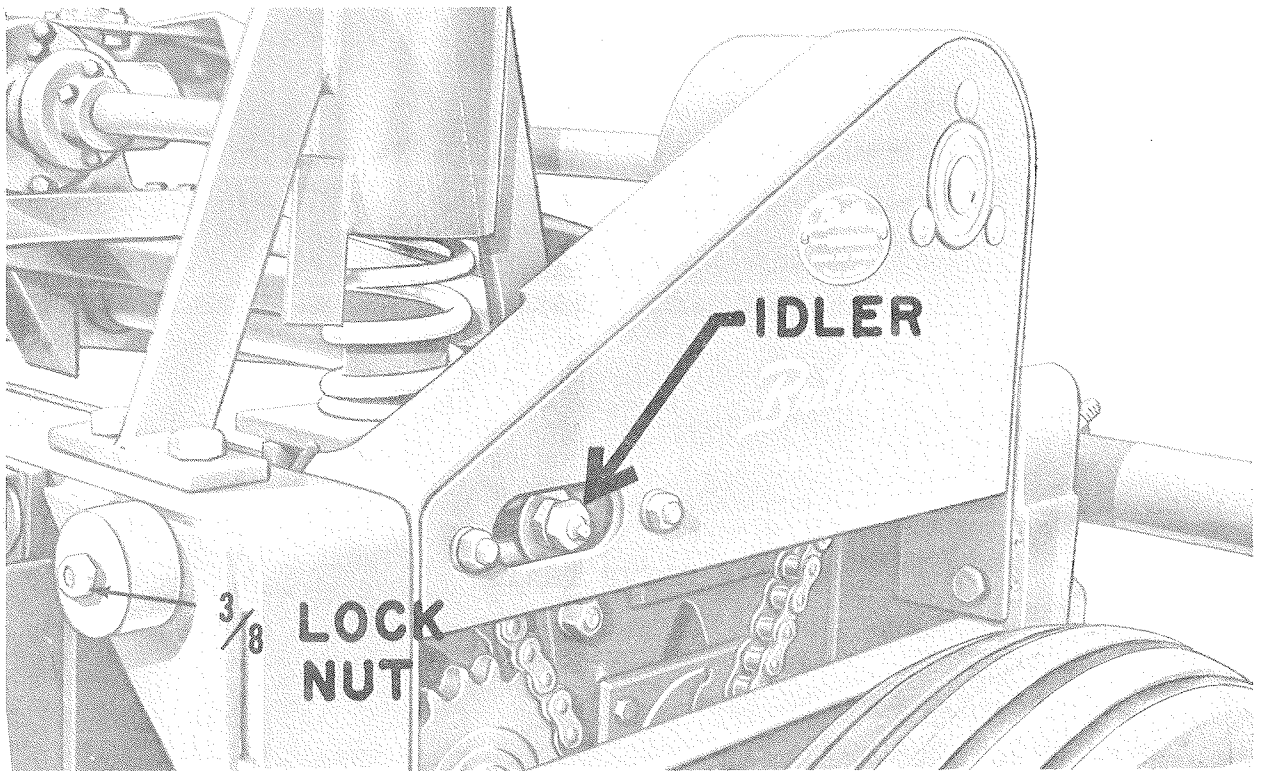
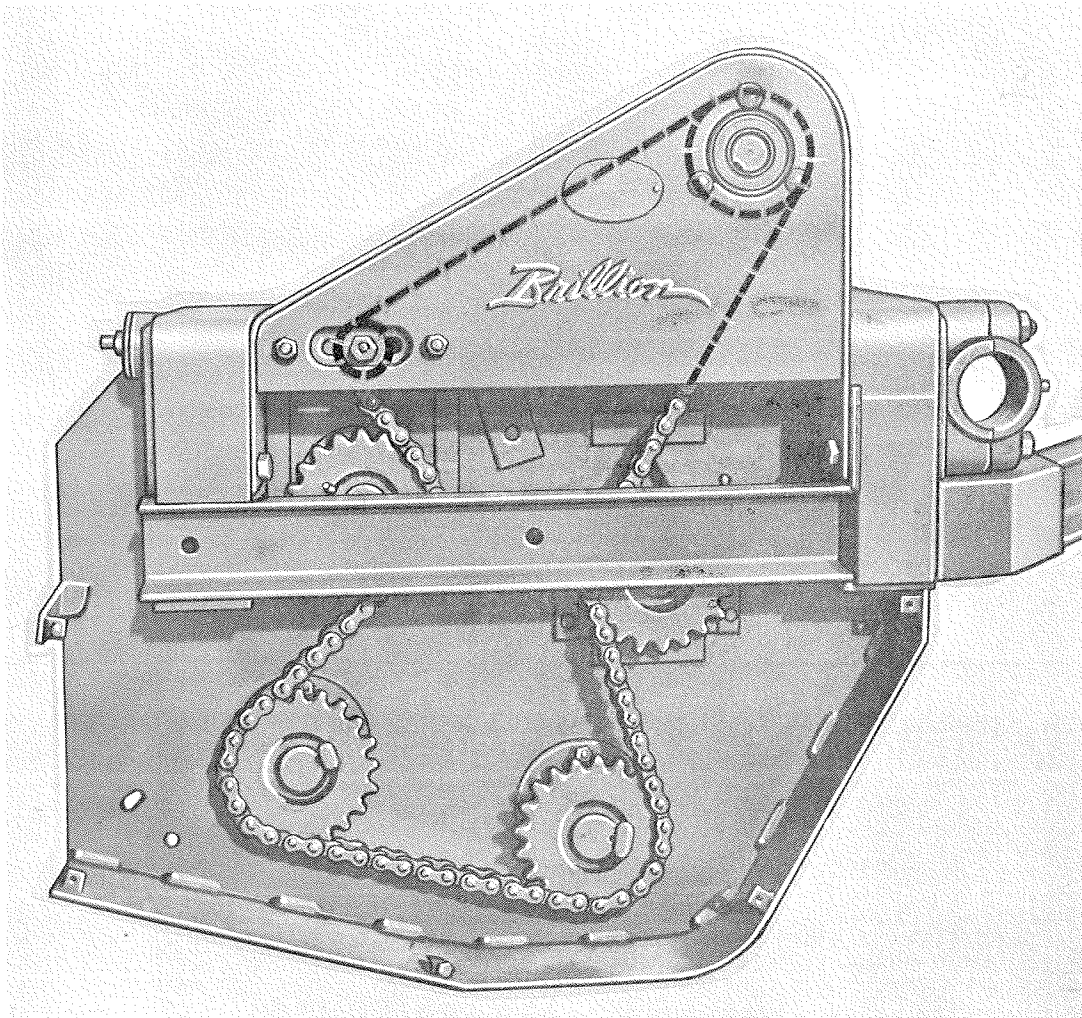


Figure 7

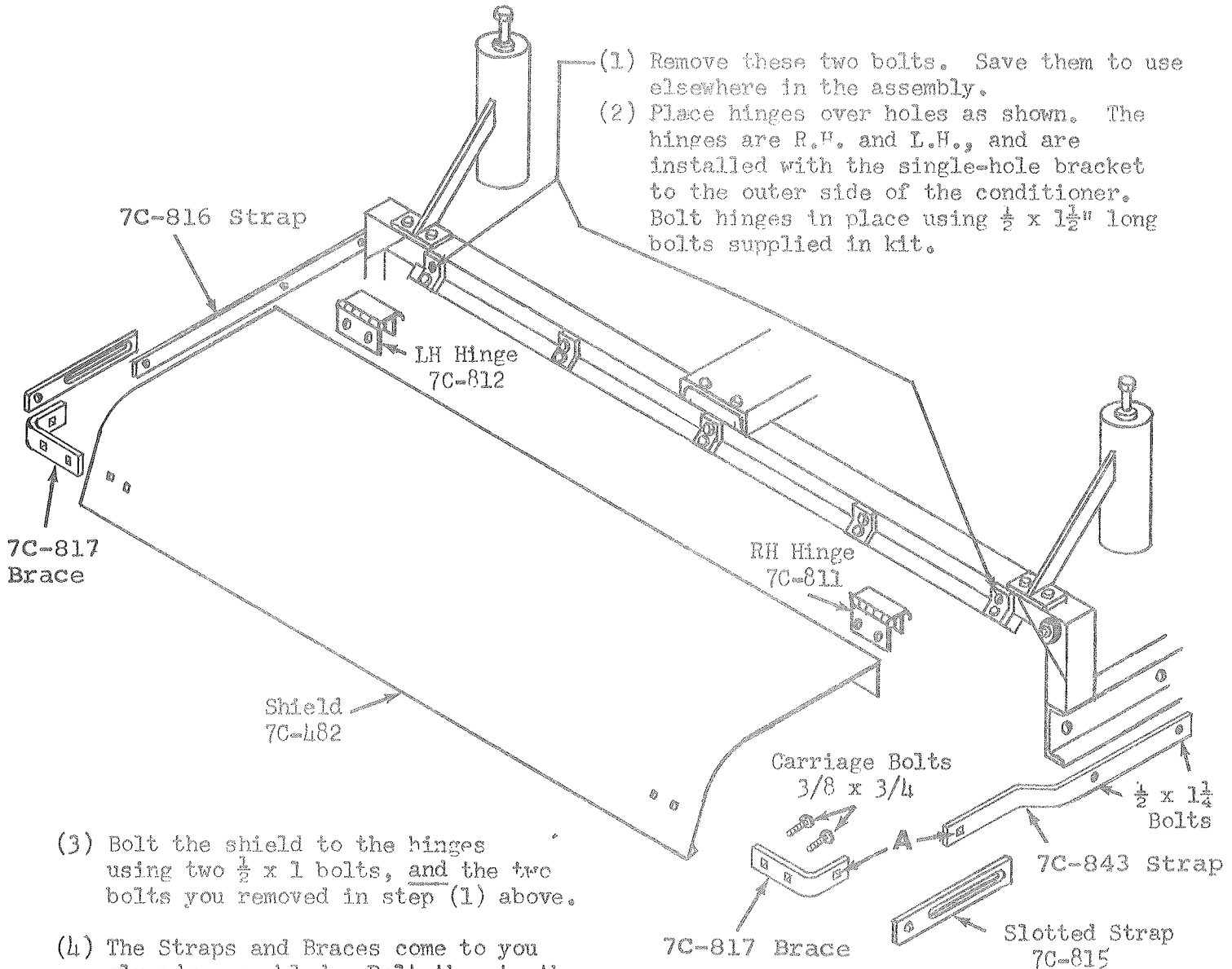


"CHAIN DRIVE TRAIN"

Figure 8

FLUFFER ATTACHMENT KIT BRILLION HAY CONDITIONER

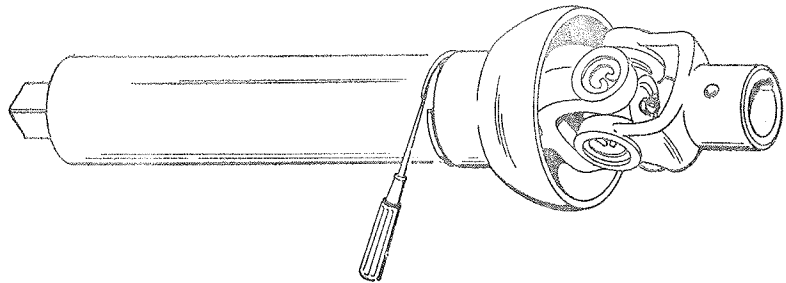
Your Fluffer Kit is designed to be mounted on all models of Brillion Hay Conditioners as shown below. It will deflect hay from the conditioner so as to stand it loosely in the field and permit more rapid drying. Follow the Installation steps as shown below.



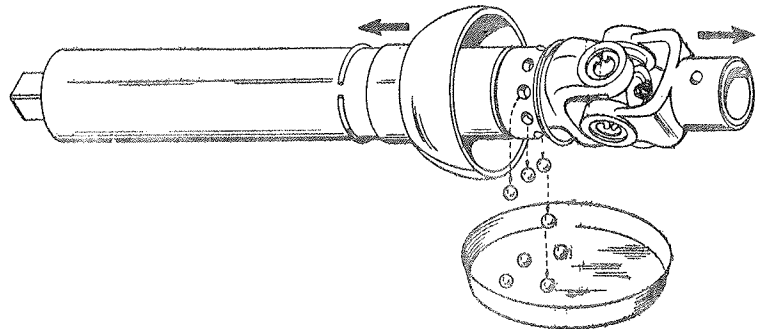
- (3) Bolt the shield to the hinges using two $\frac{1}{2} \times 1$ bolts, and the two bolts you removed in step (1) above.
- (4) The Straps and Braces come to you already assembled. Bolt them to the Conditioner frame side channels as shown above, using $\frac{1}{2} \times 1\frac{1}{4}$ bolts supplied.
- (5) Bolt the braces to the shield, on the outside back surface, using the carriage bolts from the kit. Install the carriage bolts HEAD INSIDE, so hay cannot catch on them.
- (6) Loosen the four bolts at A above, and adjust the fluffer shield so the top is approximately level when the conditioner is hitched. Tighten all bolts securely. This is the position most users find gives most satisfactory results, but the owner is advised to determine which position is most suitable for his conditions.

INSTRUCTIONS FOR REMOVING
QUICK DETACHABLE FREE WHEELING GUARD

1. Use screw driver or sharp pointed tool to remove snap ring from groove at back of bell.

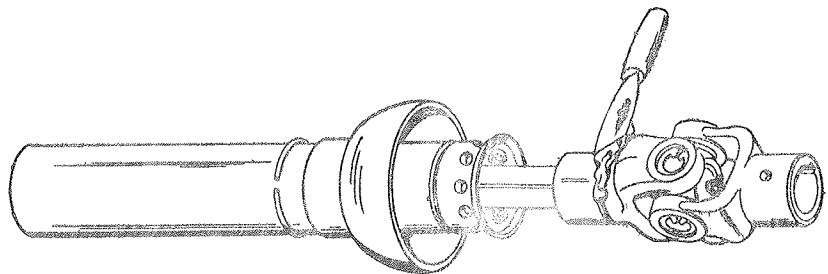


2. Hold assembly over container so that balls will not be lost and slide bell away from joint toward opposite end of tube. If balls do not drop out, slide tube away from joint, forcing balls from cage.

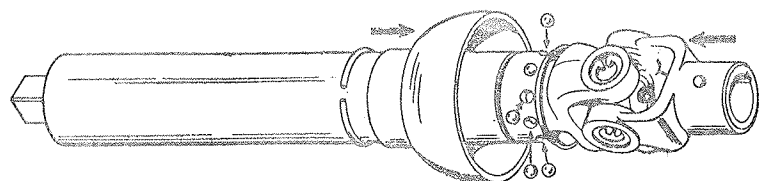


INSTRUCTIONS FOR ASSEMBLING
QUICK DETACHABLE FREE WHEELING GUARD

3. Fill raceway in yoke with grease.



4. Slide tube with bell and snap ring over raceway. Insert balls through holes into raceway where grease will hold them in place. Slide bell over balls. Slide snap ring into groove.



Grease joints, telescoping shafts and guard regularly. This Quick Detachable Free Wheeling Guard is the finest guard built. It is provided for your protection.