

**Firestone**

**FARM TIRE**

**SALES**

**MANUAL**



# Firestone

## PUT THE FARM ON RUBBER

ONE of the greatest contributions to modern agriculture was made by Harvey S. Firestone in 1932 when he developed the first practical pneumatic farm tractor tire. As a result of the research which he carried out on his farm at Columbiana, Ohio and through the subsequent efforts of his engineers, millions of farmers are now saving time, work and money, increasing their production with rubber-equipped tractors and implements.

The advantages of rubber over steel on tractor wheels were recognized early by Albert F. Schroeder of Prospect, Wisconsin, who in 1932 received from Firestone the first set of low-pressure farm tractor tires. Mr. Schroeder found that the tires greatly increased the pulling power of his tractor, provided hitherto unknown riding comfort, permitted cleaner, less dusty operation, and enabled his tractor to roll on roads and barn floors without causing damage.

Today practically all types of farm vehicles are equipped with rubber tires, and farmers everywhere recognize the advantages of rubber over steel. They recognize too, the outstanding superiority of Firestone Tires. Firestone offers the farmer a complete line from which to select the particular type of tires that will best serve his needs.

Today the Firestone Tire & Rubber Company continues with Mr. Firestone's work, continues to pioneer and set the pace in the rubber industry, bringing farmers the best today, still better tomorrow.

# Firestone

## CURVED BAR OPEN



### POWER ARC TRACTION BARS

Each bar is tapered to give a sharper initial bite at the center with positive wedge-like penetration as the shoulder area enters the soil. Gripping action is further increased because the bars are curved to exert maximum leverage with a minimum possibility of slippage.

### BIGGER, STRONGER, SHOULDERS

Extra-heavy, rugged, angular shoulder construction gives greater tread contact for a bigger bite, a better hold, and longer, more even tread wear.

### BUTTRESSED POWER LINKS

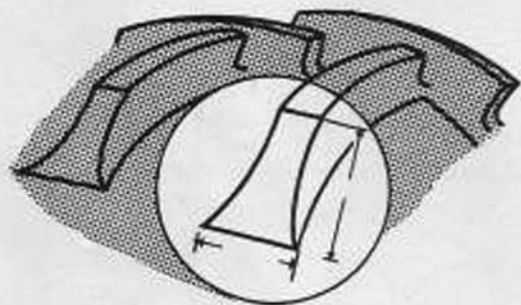
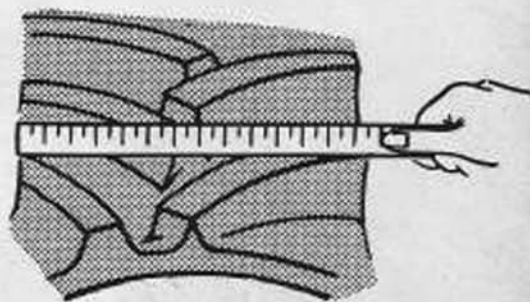
Double-thick tread base at the inner bar ends prevents excessive wiggling and wiping of bars, provides a more positive bite and longer traction life. With this type of reinforcement, bar-end body punching, so common to ordinary open center tires, is eliminated.

# CHAMPION CENTER TRACTOR TIRE



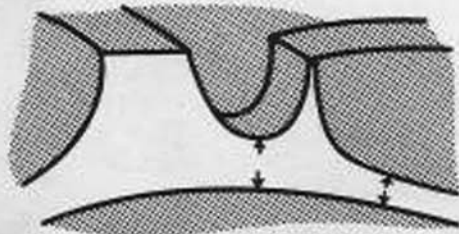
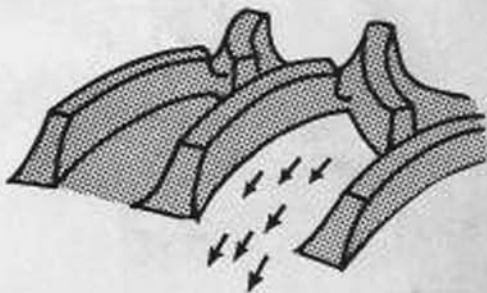
## GREATER TREAD WIDTH

Overall tread area is wider and flatter so that tread contact area is greatly increased. This means more inches of biting edge for greater traction, and more inches of riding surface to distribute the wear and provide longer tread life.



## FLARED TREAD OPENINGS

The openings between the bars increase in width from the center to the shoulders so that they take full advantage of the tire's rotational and flexing action to insure more positive cleaning.



## DUAL SHOCK PROTECTOR

Two extra tread plies imbedded in the cord body provide extra strength to absorb even the most severe impacts. Danger of damage to tire body is greatly reduced because sharp, localized impacts are neutralized through shock absorption.

(These plies have been enlarged in illustration to show location)



# The FIRESTONE GROUND GRIP OPEN CENTER TRACTOR TIRE

The Firestone Ground Grip is designed to meet the needs of tractor owners who do not have tires that are suitable for retreading, and yet do not feel they should invest in an original equipment tire such as the regular Firestone *Champion* Open Center Tractor Tire.

Although the new Firestone Ground Grip Tire is low in price, it is designed with many of the selling advantages of the regular Firestone *Champion*.

The Ground Grip Open Center Tractor Tire features:

- ★ Tapered bars that give a sharp bite at the center and wedge-like penetration at the shoulder. These bars are also curved to exert maximum leverage, and to take hold with a cupping action.
- ★ Tread openings between the bars which increase in width from center to shoulder. This enables the tire to permit clean, easy soil release, thus preventing soil jamming.
- ★ Tread shoulders designed to give maximum tread contact. This helps insure a good, sharp bite into the soil and more even tread wear.
- ★ A special thick tread base at the center bar ends. This helps give more positive traction, and also helps eliminate common bar end body breaks.
- ★ Two extra tread plies embedded in the cord body. These plies provide an extra cushion to soak up shocks and protect the cord body from damage.
- ★ New tire compounds that resist two of the greatest enemies of tractor tire life — weather and aging.

Meets and Beats  
Private Brand and Mail  
Order Competition



# The FIRESTONE CHAMPION SPADE GRIP TRACTOR TIRE



Firestone Champion Spade Grips are special purpose tractor tires built for use under adverse conditions . . . as in wet rice and cane fields. They are made with extra high, curved traction bars that bite deeply into soft ground with a powerful pulling action. Huge chunks of mud fall cleanly from the tapered openings between the traction bars as the tires pull through soft ground that would bog down and stop conventional tires. The strong, pyramid-like bars are braced to give them even greater strength . . . and longer life. No other tractor tires can match Firestone Champion Spade Grips for cleaning and pulling in wet, soft fields.



## CHAMPION SPADE GRIP TRACTOR TIRES

Tire Size	No. Plies	Rim Size	Sect. Diam.	Overall Diam.	Loaded Radius
9-32	6	<b>W8</b>	9.88	49.5	23.6
10-38	6	<b>W9</b>	10.71	58.6	27.7
11-28	6	<b>W10</b>	12.04	51.3	24.1
11-36	6	<b>W10</b>	12.04	59.3	28.1
11-38	6	<b>W10</b>	12.04	61.3	29.1
12-36	6	<b>DW11</b>	13.29	61.5	28.9
12-38	6	<b>DW11</b>	13.29	63.5	29.9
12-44	6	<b>8.00T</b>	11.79	69.5	32.9
13-24	6	<b>W11</b>	14.49	51.8	23.9
13-36	6	<b>W11</b>	14.49	63.6	29.7
13-38	6	<b>W11</b>	14.49	65.6	30.7
15-26	6	<b>W13</b>	17.50	57.7	26.1
15-28	6	<b>DW14</b>	17.63	61.1	28.0
15-30	6	<b>DW14</b>	17.50	61.9	28.5
15-34	6	<b>DW14</b>	17.50	65.7	29.6
18-26	8	<b>DW20</b>	23.35	66.2	29.6

# ALL-NON-SKID TRACTOR TIRES



Developed and built to deliver maximum traction on sand or extremely loose soil, the Firestone All-Non-Skid tractor tire is highly efficient in orchards and in spongy fields. The tread design provides extra flotation and prevents side-slip on slopes. All-Non-Skids also are efficient when used on golf course maintenance equipment and on mowing machines operated on highway right-of-ways.

Because of the closer spacing of the traction blocks on the All-Non-Skid tread and the larger area of surface contact, this tire provides smoother roadability and longer wear on hard surface roads than can be expected of tires with bar type treads. For that reason, tractors that are used a great deal on the highway are often equipped with All-Non-Skid tires.

Firestone All-Non-Skid tractor tires are especially adapted to golf course operations. They take a good firm grip on sod and uneven terrain. Because there are no sharp biting edges on the All-Non-Skid tractor tires they do not damage fairways or leave tread imprints.



## ALL-NON-SKID TRACTOR TIRES

Tire Size	No. Plies	Rim Size	Sect. Diam.	Overall Diam.	Loaded Radius
7.00-22	4	4.50E	7.25	36.5	16.9
7.50-16	4	5.50E	8.00	31.2	14.3
8-24	4	W7	8.30	38.0	17.6
8-32	4	W7	8.30	46.1	21.6
9-24	4	W8	9.50	39.8	18.5
10-24	6	W9	10.70	41.8	19.0
10-28	4	W9	10.95	47.0	21.0
12-26	6	DW11	13.10	47.6	21.7
13-26	6	DW12	14.40	50.1	23.3
14-24	6	DW11	15.92	51.9	23.2
14-26	6	W13	15.93	54.8	24.5
15-24	6	DW11	16.00	50.9	23.6
18-26	8	DW20	22.50	59.9	26.4

# FIRESTONE FRONT WHEEL TRACTOR TIRES

## GUIDE GRIP



This tire has one large circumferential rib reinforced at the shoulders by tough, closely spaced blocks. This main rib contributes to easy steering and resists sideslip. It helps hold the tractor to a shorter turning radius in loose soil at row ends. The Guide Grip also provides maximum flotation. Since its introduction this tire has become the leading original equipment front tractor tire for general farming operations.

Tire Size	No. Plies	Rim Size	Sect. Diam.	Overall Diam.	Loaded Radius
3.00-12	2	2.50C	3.41	19.3	9.1
4.00-12	2	3.00D	4.56	21.5	10.0
4.00-15	4	3.00D	4.40	24.4	11.5
4.00-19	4	3.00D	4.40	28.6	13.5
5.00-15	4	3.00D	5.10	26.5	12.0
5.50-16	4	4.00E	5.90	28.2	13.2
5.50-16	6	4.00E	5.90	28.2	13.3
6.00-12	4	4.00E	6.25	24.2	11.1
6.00-16	4	4.00E	6.25	29.0	13.4
6.00-16	6	4.00E	6.25	29.0	13.5
6.00-20	4	4.50E	6.45	33.0	15.5
6.50-16	6	4.50E	6.80	29.2	13.5
7.50-10	4	5.50F	8.00	25.3	11.4
7.50-10	6	5.50F	8.00	25.3	11.5
7.50-16	4	5.50F	8.00	31.3	14.3
7.50-16	6	5.50F	8.00	31.3	14.4
7.50-18	4	5.50F	8.00	34.3	15.8
7.50-18	6	5.50F	8.00	34.3	15.9
7.50-20	4	5.50F	8.00	36.4	16.8
9.00-10	8	6.00F	9.20	26.9	12.2

## GUIDE LINE



Here's the high-quality, low-priced tire you can sell to the farmer who in the past has bought a used, retread, or a cheap passenger tire. It's priced to meet and beat all competition. Improved tread design with three smooth circumferential ribs for easy steering. Rugged shoulder design resists side slipping.

Tire Size	No. Plies	Rim Size	Sect. Diam.	Overall Diam.	Loaded Radius
4.00-15	4	3.00D	4.35	24.2	11.4
4.00-19	4	3.00D	4.35	28.2	13.3
5.00-15	4	3.00D	4.92	25.7	11.5
5.50-16	4	4.00E	5.84	27.7	12.9
6.00-16	4	4.00E	6.31	29.1	13.3



## GUIDE-O-MATIC

This tire is built to give longer wear and better steering control when used in listed or bedded land. It is designed to eliminate common tire reversing procedure. The extra heavy construction makes it ideal for working in all kinds of stubble. The smooth tapered tread is self-cleaning.

Tire Size	No. Plies	Rim Size	Sect. Diam.	Overall Diam.	Loaded Radius
5.00-15	4	3.00D	5.10	25.9	12.0
5.50-16	4	4.00E	5.90	28.2	13.2
6.00-16	4	4.00E	6.42	29.1	13.6



## DUO-RIB

A special purpose tire for the special steering requirements of some harvesters. Generally used as original equipment on the Minneapolis-Moline Uni-Harvester.

Tire Size	No. Plies	Rim Size	Sect. Diam.	Overall Diam.	Loaded Radius
7.50-18	6	5.50F	8.43	33.12	15.3



## SINGLE RIB GUIDE GRIP

A smooth tread tire having one circumferential rib. This tire is especially adapted for use in extreme mud conditions as found in the rice and cane fields.

Tire Size	No. Plies	Rim Size	Sect. Diam.	Overall Diam.	Loaded Radius
4-19	4	3.00D	4.40	28.8	13.7
5.50-16	4	4.00E	5.82	28.6	13.3
6.00-16	4	4.00E	6.16	29.8	13.9
7.50-16	4	5.50F	7.94	32.8	14.7
7.50-16	6	5.50F	7.94	32.8	14.7
7.50-18	4	5.50F	7.94	34.8	15.7
7.50-18	6	5.50F	7.94	34.8	15.7
7.50-20	6	5.50F	7.94	36.8	16.7



# IMPLEMENT TIRES

## THE RIB IMPLEMENT TIRE

Firestone Rib-Implement Tires are built specifically for free-rolling farm equipment such as wagons, plow wheels, and combines that do not have power takeoffs, and trailers. Five circumferential ribs insure against side slipping and enable the tires to grip the ground on side hills and banks.

Because the ribs run in a fore and aft direction they offer minimum rolling resistance and a maximum degree of directional stability.

Treads are made of tough rubber that is long lasting both in operations in fields, and on the highway.



## RIB IMPLEMENT TIRES

Tire Size	No. Piles	Rim Size	Section Diameter	Overall Diameter	Loaded Radius	Tire Size	No. Piles	Rim Size	Section Diameter	Overall Diameter	Loaded Radius
*3.50-12	4	2.50C	3.80	19.6	9.4	6.70-15	4	4 1/2K	6.68	27.7	12.7
4.00-9	4	3.00D	4.40	17.8	8.2	6.70-15	6	4 1/2K	6.68	27.7	12.7
4.00-12	4	3.00D	4.40	20.8	9.6	7.50-16	6	5.50F	8.00	30.7	13.7
4.00-18	4	3.00D	4.40	26.8	12.5	7.50-16	8	5.50F	8.00	30.7	13.7
†4.00-30	4	3.00D	4.40	38.4	18.3	7.50-18	4	5.50F	8.00	33.0	14.8
†4.00-30	6	3.00D	4.40	38.4	18.4	7.50-18	6	5.50F	8.00	33.0	14.9
†4.00-36	4	3.00D	4.40	44.4	21.3	7.50-24	6	W-7	9.00	39.5	18.5
5.00-15	4	3.00D	5.10	25.1	11.3	7.50-24	8	W-7	9.00	39.5	18.5
5.00-16	4	4.00E	5.60	26.1	11.8	7.50-36	6	W-7	9.00	51.5	24.5
5.00-36	6	3.00D	5.10	46.1	21.8	7.50-36	8	W-7	9.00	51.5	24.5
†5.00-21	4	3.00D	5.10	31.8	14.7	7.60-15	4	5 1/2K	7.60	29.3	13.3
†5.00-40	4	3.00D	5.10	50.4	23.9	7.60-15	6	5 1/2K	7.60	29.3	13.3
5.50-16	4	4.00E	5.90	27.1	12.1	9.00-16	10	6.00F	9.20	33.5	14.9
5.50-16	6	4.00E	5.90	27.1	12.1	9.00-24	6	W-8	10.83	43.1	20.0
5.90-15	4	4J	5.86	26.6	12.1	9.00-24	8	W-8	10.83	43.1	20.0
6.00-9	6	4.00E	6.25	20.9	9.4	9.00-36	6	W-8	10.83	45.1	25.3
6.00-9	8	4.00E	6.25	20.9	9.5	9.00-36	12	W-8	10.83	45.2	26.0
6.00-15	4	4.00E	6.25	27.0	12.4	9.00-40	8	W-8	10.83	49.1	28.0
6.00-16	4	4.00E	6.25	27.9	12.5	11.25-24	8	W-10	12.92	46.7	21.5
6.00-16	4	4.00E	6.25	28.1	12.5	11.25-24	10	W-10	12.92	46.7	21.5
6.00-20	6	4.50E	6.50	31.9	14.5	11.25-28	8	W-10	12.92	50.7	23.5
6.40-15	4	4 1/2K	6.37	27.1	12.5	11.25-28	10	W-10	12.92	50.7	23.5
6.50-16	4	4.50E	6.80	28.6	12.7	11.25-36	10	W-10	12.92	58.7	27.5
6.50-16	6	4.50E	6.80	28.6	12.8	12.75-28	8	W-11	15.11	53.6	24.4
6.50-16	8	4.50E	6.80	28.6	12.9	12.75-32	8	W-11	15.11	57.6	26.4
6.50-36	6	W-6	7.87	49.9	23.7						
6.50-36	4	W-6	7.87	49.9	23.7						

\*Plow Wheels. †Available in Ground Grip Tread only.

# FIRESTONE TRACTOR NEEDS

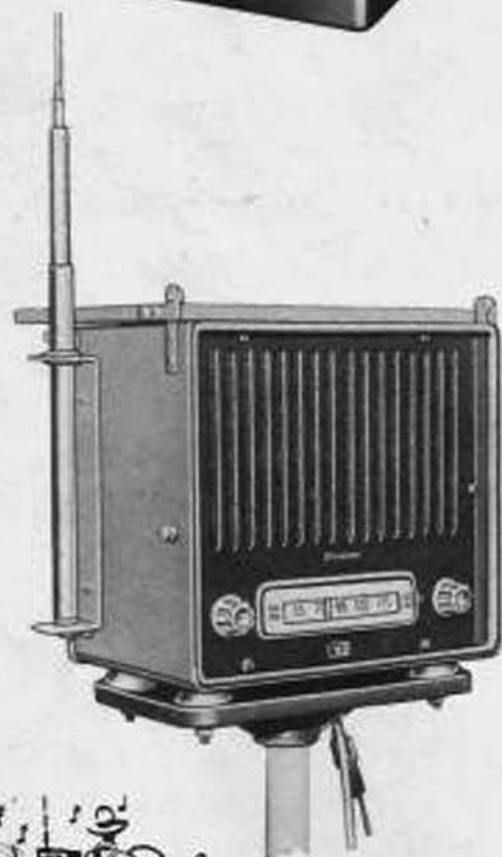
## FIRESTONE TRACTOR BATTERY



- ★ Extra Thick Plates.
- ★ Fits all tractors requiring Group I Battery.

Designed for tough, hard usage. Rugged durable plates enclosed in dependable hard rubber case built to withstand rough treatment. Available in regular wet type battery or in the new Dri-Charged type. The Dri-Charged battery can be stored indefinitely without acid . . . it's factory-fresh the minute you pour in the acid. Provides a minimum of 3000 hours service. Estimate average is 1000 hours per year. Guaranteed 18 service adjustment units. Length 8-15/16", width 7", and height 8 3/4".

## FIRESTONE FARM TRACTOR RADIO (4-B-69)



An all-new farm tractor radio ready for an almost entirely unsolicited market! This strong receiver is built to take the roughest terrain—has an output so powerful ignition noises are eliminated, and its volume is capable of carrying several hundred yards. It's shockproof and weatherproof. With an all time high registration of 7,000,000 farm tractors, this item is a natural for salesmen covering the farm trade. Implement dealers should watch especially for the extra profits in add-on sales with new or even used tractor buyers, as well as owners. Sell these extra-value features:

- ★ Shockproof and weatherproof.
- ★ 8-tube superheterodyne (including rectifier).
- ★ Large 6" x 9" powerful Alnico Speaker.
- ★ Push-pull beam power output for extreme selectivity and sensitivity.
- ★ Low battery drain—operates on six-volt storage battery.
- ★ Lighted dial.
- ★ Simple installation on all tractors.
- ★ Dimensions 9 3/8" x 10 3/8" x 7 1/8". Wt. 23 lbs.
- ★ Fire engine red bondarized finish to prevent rust and corrosion.





# HYDRO-FLATION



Operating a Firestone electric Hydro-Flator on a farm.

Firestone Hydro-Flation—liquid-weighting of tractor tires with a unique and efficient pump unit—gives dealers an opportunity to establish contacts, through custom service, with farmers who use other than Firestone tires. Any make of tractor tire can be Hydro-Flated. The Hydro-Flator yields both cash and customer good will.

The Hydro-Flator, which can be handled by one man and carried in an automobile or light truck, can be used either at the shop or on the farm, operating on 110-volt current.

Here are the advantages of Hydro-Flation:

1. **Greater Pulling Power**—Hydro-Flation, by weighting tractor tires, enables the traction bars to bite into the soil and get a better grip. This means greater drawbar pull, which speeds up work and lowers operating costs.
2. **Increased Tread Life**—Because Hydro-Flation reduces slippage to a minimum, Hydro-Flated tires last longer.

3. **Retains the Pneumatic Principle**—Hydro-Flated tires carry the load on air pressure, since an air chamber is left in the tire to absorb the shocks and protect the cord body. **THIS IS IMPORTANT.** Impartial tests at Michigan State College, a leading agricultural college, show that a Hydro-Flated (90% liquid filled) rear tractor tire is *32% more resistant to bruise breaks* than a completely filled tire of the same type and size.
4. **Improved Riding Qualities**—Studies at the same college also prove that Hydro-Flation sharply reduces the height of a tractor's bounce in jolts, and greatly dampens the force of such jolts.
5. **Lowest Possible Cost**—Hydro-Flation is the least expensive of all methods of tractor tire weighting. The electric Hydro-Flator reduces labor costs because it installs liquid in tractor tires faster than any other method. A 10-38 tire can be serviced in approximately 8½ minutes.

# FOR TRACTOR TIRES



## HYDRO-FLATION PROCEDURE

Attach adapter and unit assembly part "A" to valve stem. *Do not use pliers* (See Fig. 1).

Attach supply hose to part "B" and connect part "B" to part "A" on valve stem. (See Fig. 2).

Part "C" is used to remove core housing. Be sure *vent tube* is pulled out far enough to allow part "C" to engage valve core housing and remove it. (See Fig. 3).

Now, insert vent tube to the top of the tire with draw  $\frac{1}{2}$  the cross section of the tire. For example—a 10-38 tire— $\frac{1}{2}$  of 10 inches or 5 inches. The operator may now proceed with the actual Hydro-Flation. (See Fig. 4).

## To Remove Solution

The tire is rotated until the valve is at the bottom. The adapter "B" is attached to the valve, the core housing is removed and the supply hose connected to adapter "B." The pump is reversed and the solution is rapidly drawn from the tire. (See Fig. 5).

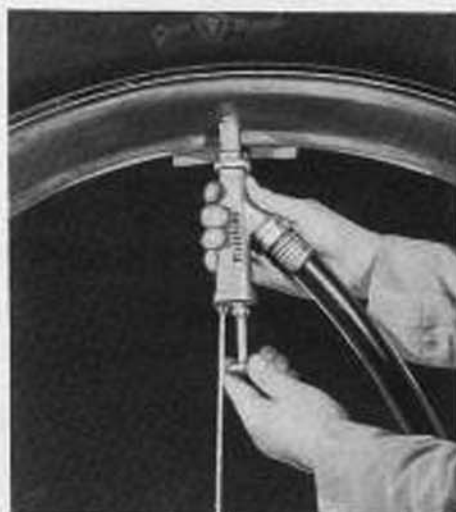


Fig. 1.

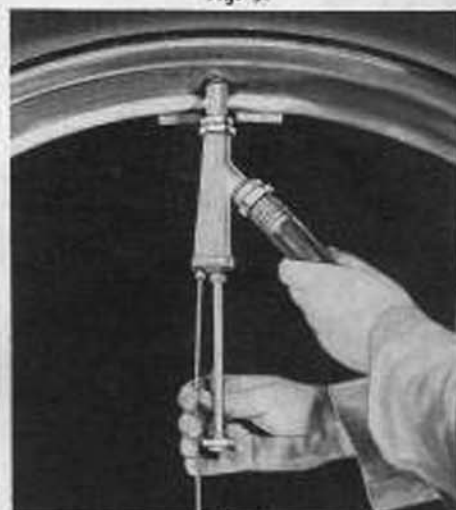


Fig. 2.



Fig. 3.

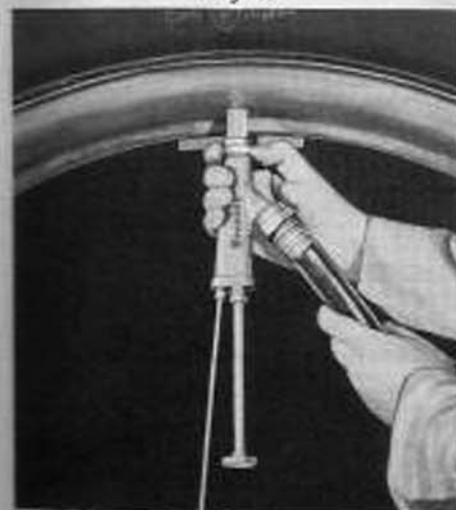


Fig. 4.

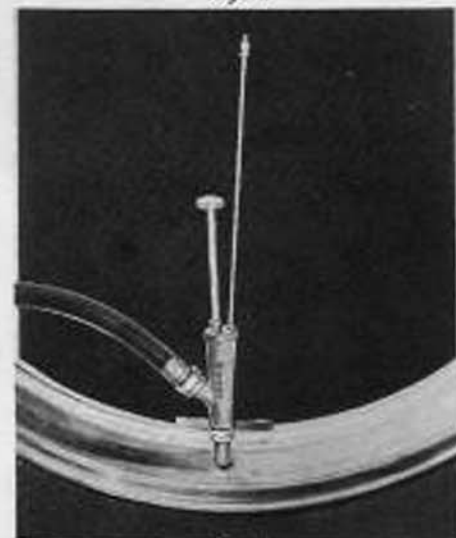


Fig. 5.