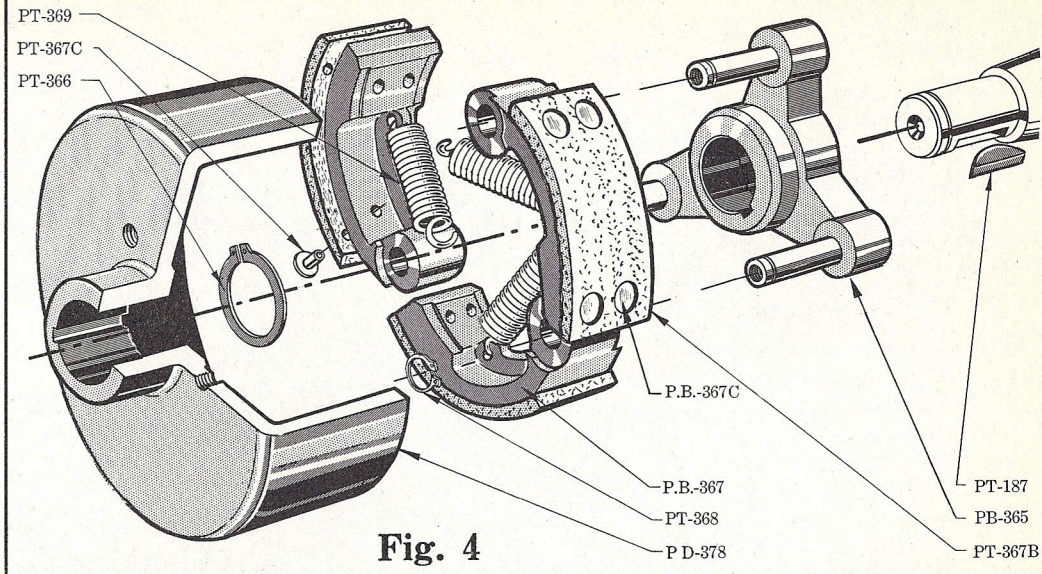


**Fig. 3**



## ENGINE

AB-22	Exhaust manifold gasket (2 used)
B-4-I	Con rod bolt (4 used)
B-4-J	Con rod nut (4 used)
B-4-K	Con rod tab washer (4 used)
F-19	Retaining rings (4 used)
F-29	Spark Plug (2 used)
PBA-3	Crankshaft and Rotary valve
PB-4	Con rod assembly (2 used)
PB-4-C	Loose needles for con rod assembly (54 used)
PD-20	Cylinder unit (2 used)
PE-21	Exhaust manifold (2 used)
PD-23	Cylinder head (2 used)
PD-61	Outlet deflector
PT-5	Through studs (8 used)
PT-6	Bearing (2 used)
PT-7	Oil seal (2 used)
PT-13	Piston (2 used)
PT-14	Wrist pin (2 used)
PT-16	Piston rings (4 used)
PT-17	Cylinder head gasket (2 used)
PT-19	Cylinder base gasket (2 used)
PT-104	Swivel stud (3 used)
PT-187	Woodruff key (3 used)
PT-289	Needle bearing (wrist pin end) (2 used)



PEA-12	Crankcase assembly
ISPW-4	Cylinder head lockwasher (8 used)
RHMC 4x5/8	Outlet deflector screws (2 used)
RHMC 4x5/8	Exhaust Body screws (4 used)
HNF-4	Cylinder head nuts (8 used)
SAEW-4	Outlet deflector washers (2 used)
SLW-4	Lockwashers (4 used)
SAEW-4	Flat washers (8 used)
SB-191	Fan housing studs (4 used)

## CLUTCH

PB-365	Clutch driving plate
PB-367	Clutch shoe (3 used)
PB-367C	Clutch lining rivet (long) (6 used)
PD-378	Clutch drum
PT-187	Pinion shaft key
PT-366	Clutch retainer clip (1 used)
PT-367B	Clutch lining (3 used)
PT-367C	Clutch lining rivet (short) (6 used)
PT-368	Clutch shoe clip (3 used)
PT-369	Clutch spring (3 used)



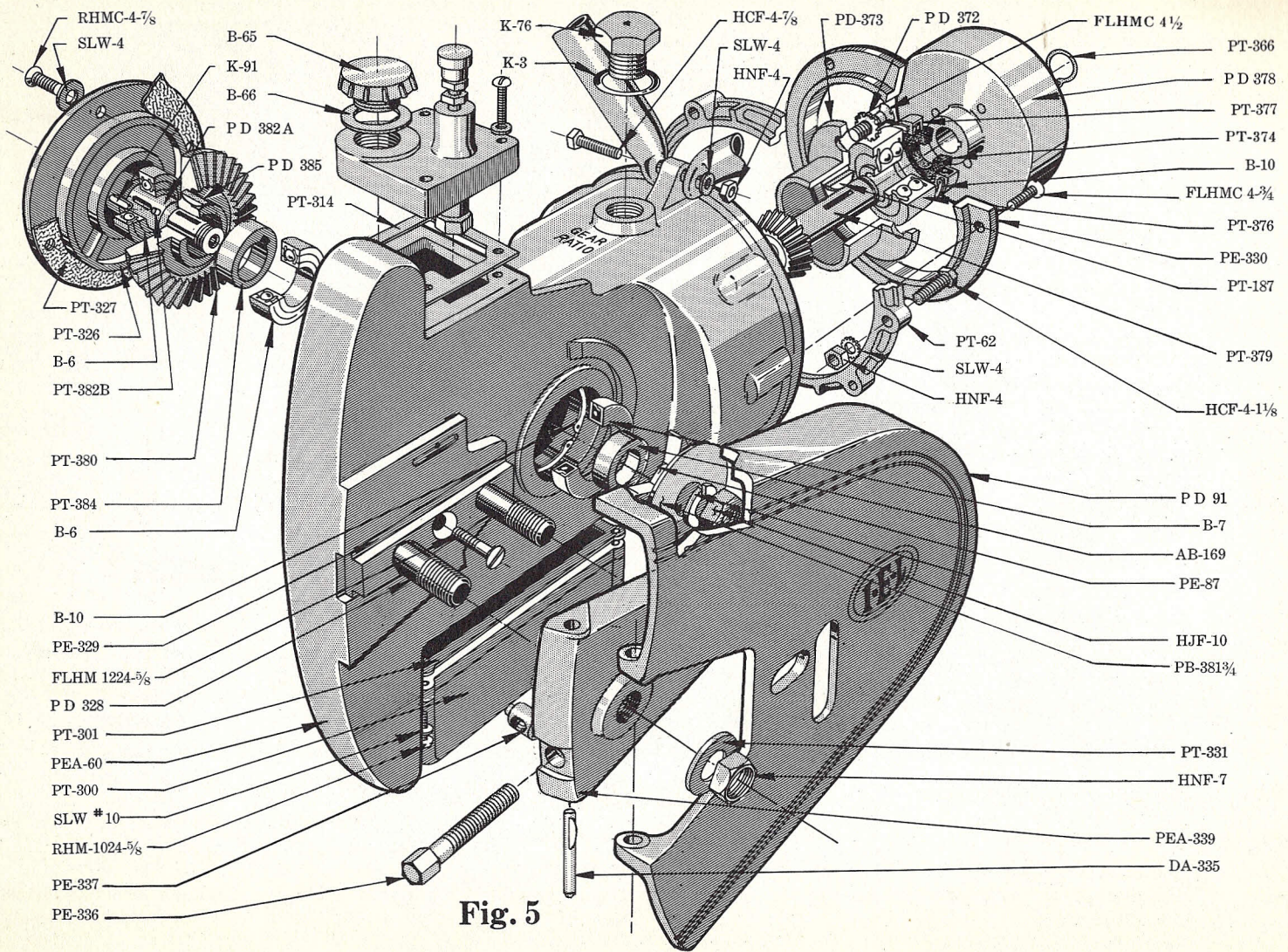


Fig. 5



## TRANSMISSION

AB-169	Gearshaft spacer
B-6	Gearshaft bearing (2 used)
B-7	Gearshaft bearing seal
B-10	Pinion shaft bearing clip
B-10	Gearshaft bearing retainer clip
B-65	Oil filler cap
B-66	Oil filler cap gasket
K-3	Gearhousing vent plug washer
K-76	Gearhousing vent plug
K-91	Crown gear key
PEA-60	Gearhousing with key and studs only
PEA-60-1	Transmission assembly
PE-87	Chain driving sprocket
PD-91	Chain guard
PD-328	Strut stud (2 used)
PEA-339	Adjusting type strut
PD-372	Lockwashers (4 used)
PD-373	Pinion bearing housing
PD-378	Clutch drum
PD-382A	Gear shaft
PD-385	Sprocket key
PT-62	Swivel holding ring
PT-187	Pinion shaft key
PT-300	Oil sump
PT-301	Oil sump gasket
PT-314	Oil control body gasket
PT-326	Gearhousing cover
PT-327	Gearhousing cover gasket (4 used)
PE-329	Strut key
PE-330	Gearhousing insert
PT-331	Strut stud washer (2 used)
PE-336	Chain tightener adjust- ing screw
PE-337	Chain tightener adjust- ing pin
PB-381- $\frac{3}{4}$	Sprocket washer
PT-376	Pinion shaft bearing
PT-377	Pinion shaft seal
PT-379	Pinion gear — 4-1 gear ratio—sold only in set as PTA-380

PT-366	Clutch retainer clip
PT374	Drum felt washer
PT-380	Crown gear — 4-1 gear ratio—sold only in set as PTA-380
PTA-380	Crown and Pinion set — 4-1 gear ratio (sold only in sets)
PT-382B	Eccentric pin
PT-384	Gearshaft eccentric
FLHMC 4x $\frac{1}{2}$	Screw for pinion bearing housing (4 used)
RHM 1024x $\frac{5}{8}$	Oil sump screws (4 used)
RHMC 4x $\frac{3}{8}$	Gearhousing cover screws (4 used)
FLHMC 4x $\frac{3}{4}$	Gearhousing insert screws (8 used)
FLHM 1224x $\frac{5}{8}$	Strut key screw
HCF 4x1 $\frac{1}{8}$	Swivel holding ring bolt (5 used)
HCF 4x $\frac{7}{8}$	Front handle upper brace bolt
HJF-10	Chain sprocket nut
HNF-4	Front handle upper brace nut
HNF-4	Swivel holding ring nut (8 used)
HNF-7	Strut stud nut (2 used)
SLW-4	Gearhousing cover washers (4 used)
SLW-4	Swivel holding ring washer (8 used)
SLW-4	Front handle upper brace washer
SLW No. 10	Oil sump washer (4 used)
DA-335	Guard hinge pin

AB-221	Oil pump plunger grommet (2 used)
PD-308	Oil pump inlet valve
PD-309	Oil pump intake tube
PD-310	Oil pump intake
PE-302	Oil pump body

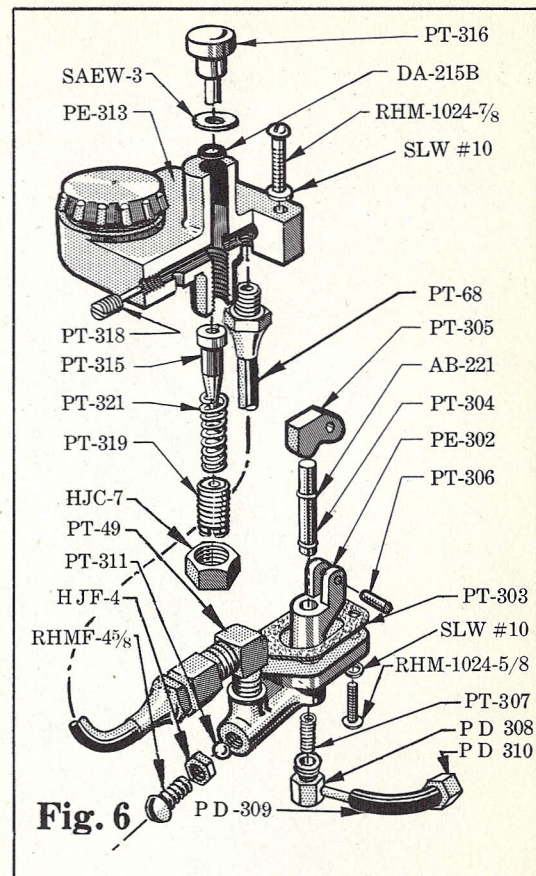
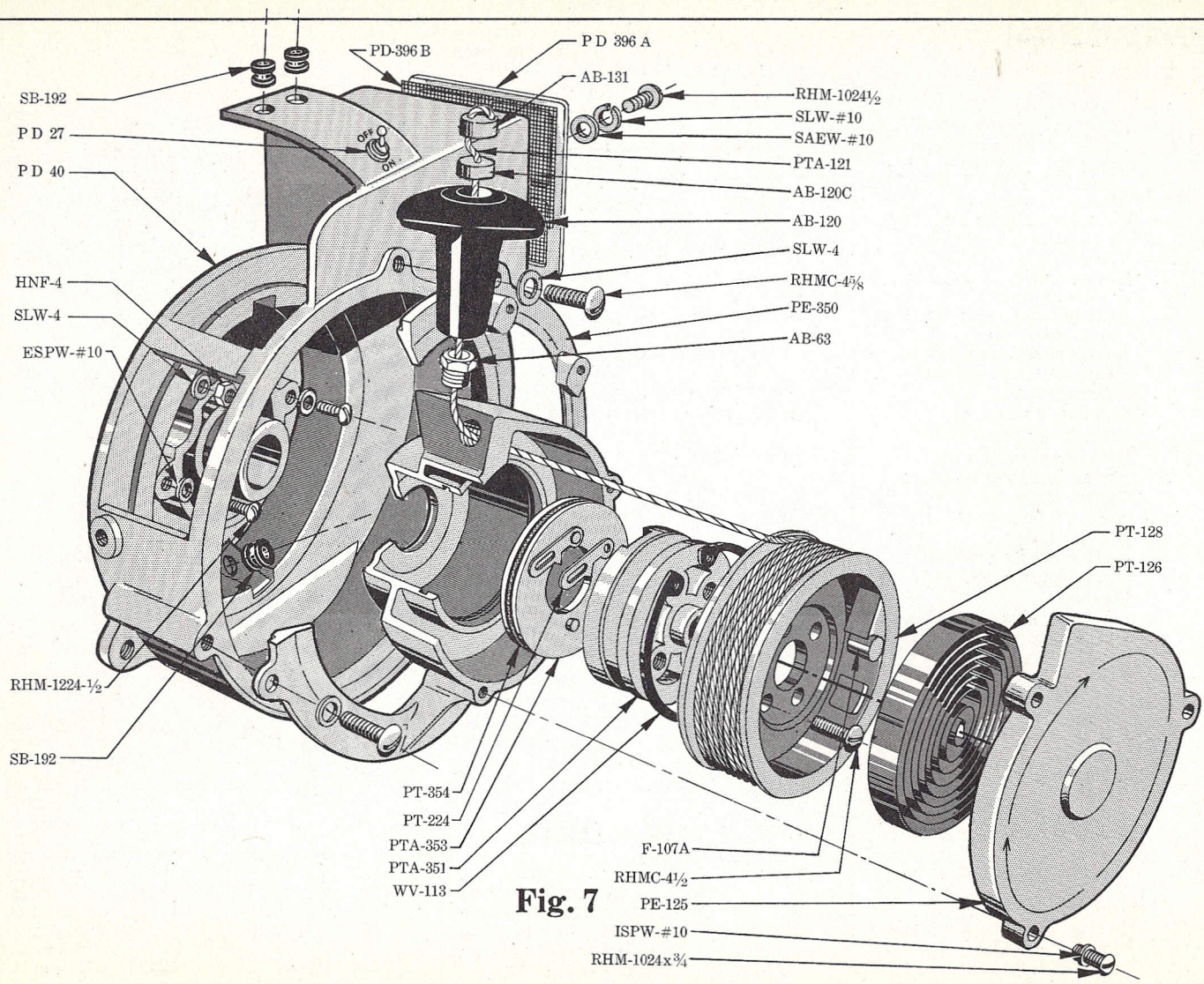


Fig. 6

PEA-302-1	Oil pump and oiler control assy., complete
PT-303	Oil pump body gasket
PT-304	Oil pump plunger
DA-215B	Oil control gland pack- ing (2 used)
PT-49	SAE male elbow

## OIL PUMP





**Fig. 7**



SB-192	Ignition wire grommet (4 used)
PT-68	Oil delivery line
SAEW3	Oil control gland washer
PT-305	Oil pump rocker
PT-306	Oil pump rocker pin
PT-307	Oil pump plunger spring
PT-311	Oil pump outlet valve
PE-313	Oiler control body
PT-315	Oiler control valve
PT-316	Oiler control valve shaft
PT-318	Oiler metering plug
PT-319	Oiler control valve seat
PT-321	Oiler control valve spring
RHM 1024- $\frac{5}{8}$	Oil pump body screw (3 used)
RHM 1024- $\frac{7}{8}$	Oiler control body screw (3 used)
RHMF 4x $\frac{5}{8}$	Oil pump outlet valve screw
HJC-7	Oiler valve seat locknut
SLW-No. 10	Oiler control body washer (3 used)
SLW-No. 10	Oil pump body washer
HJF-4	Oil pump nut

## Fan Housing and Starter

AB-63	Starter cable bushing
AB-120	Starter handle
AB-120C	Starter rope washer
AB-131	Starter cable anchor
PD-27	Ignition switch
PD-40	Fan housing
PE-350	Starter housing
PD-396A	Air cleaner element
PD-396B	Air cleaner screen
PD-350-1	Starter assembly, complete
PE-125	Starter cover
PT-126	Starter spring
PT-128	Starter pulley
PT-224	Starter pawl (4 used)
PT-354	Starter slip plate friction ring
PTA-121	Starter cable assembly
PTA-351	Starter Rotor assembly
PTA-353	Starter Slip Plate, complete with studs
F-107A	Starter cable ferrule

HNF-4	Fan housing nut (4 used)
ESPW-No. 10	Magneto Stator washer (2 used)
SAEW-No. 10	Air cleaner washer
SLW-4	Starter housing washer (3 used)
SLW-4	Fan housing washer (4 used)
ISPW-No. 10	Starter cover washer (3 used)
RHM 1224- $\frac{1}{2}$	Magneto Stator screw
RHMC 4x $\frac{1}{2}$	Starter pulley screw (4 used)
RHMC 4x $\frac{3}{4}$	Starter housing screw (3 used)
RHM 1024x $\frac{1}{2}$	Air cleaner screw
RHM 1024x $\frac{3}{4}$	Starter back plate screws (4 used)
RHM 1024x $\frac{3}{4}$	Starter cover screws (3 used)
SLW-No. 10	Air cleaner lock washer
WV-113	Clip ring

## MAGNETO

B-34	Spark plug cover (2 used)
PE-25B	Rotor fan
PC-356	Starter driver nut
PT-25	Magneto assembly, complete
PT-25A	Stator plate unit (includes coil, condenser and breaker mechanism) (Wico X-7068)
PT-25C	Breaker cam
PT-25D	Ignition wire (2 used)
2264A	Coil wedge (4 used)
2965	Fixed contact clamp screw washer (4 used)
5431	Screw (6 used)
5445	Core screw (4 used)
5446	Cam wiper felt (2 used)
5486	Ignition wire grommet (2 used)
X-5460	Coil (2 used)
X-5463	Condenser (2 used)
PE-25G	Screen
X-5464	Coil terminal protector (2 used)
PD-189	Cam key

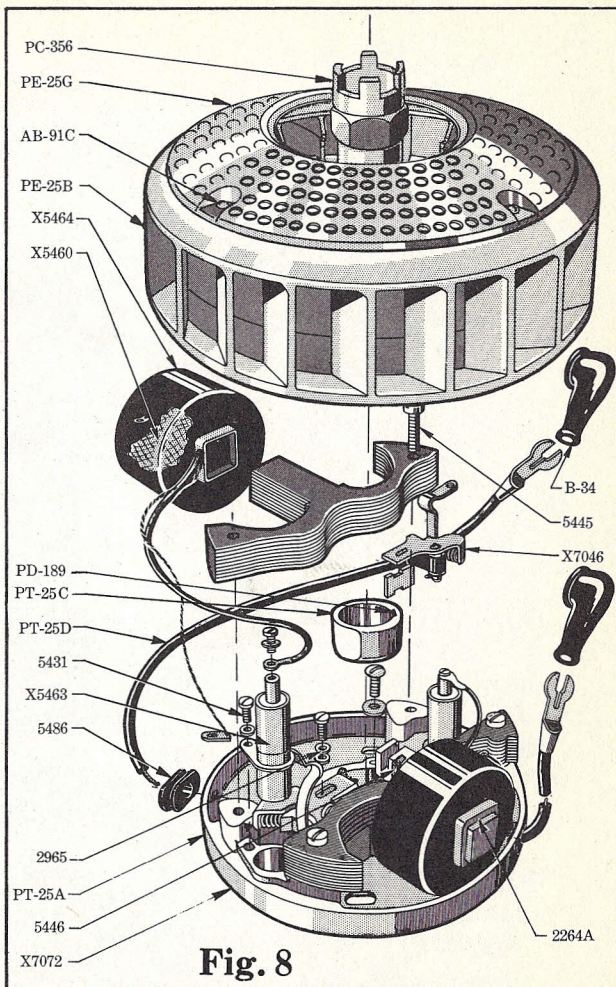
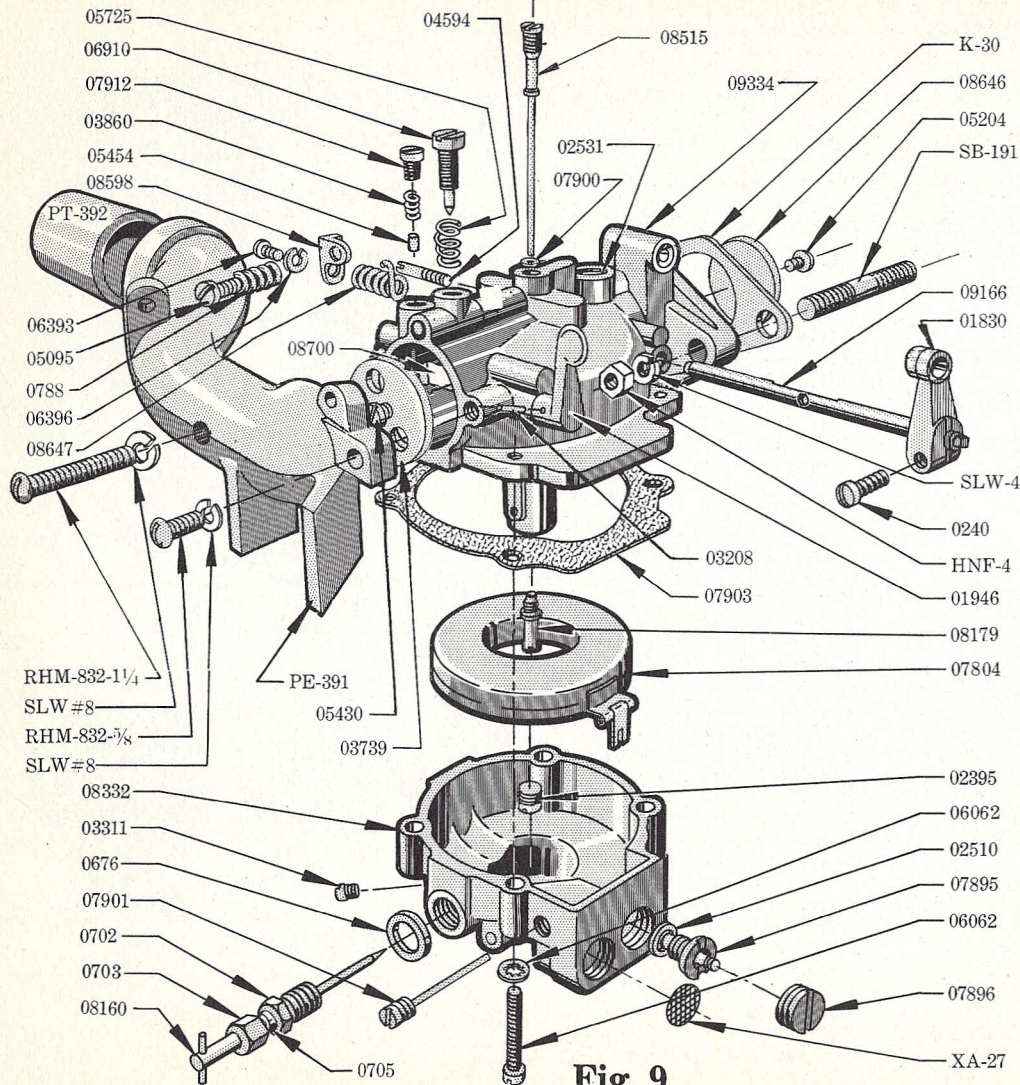


Fig. 8

X-7046	Breaker contact set (2 used)
X-7072	Stator plate only
AB-91C	Rivets (3 used)



# CARBURETOR

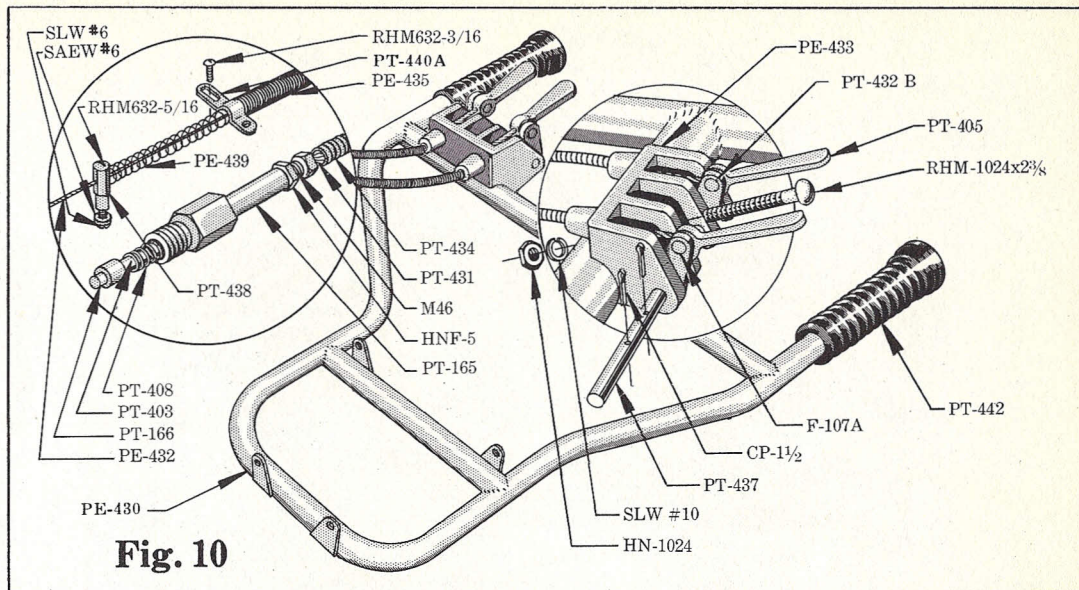


- |               |  |
|---------------|--|
| PD-47         | Carburetor, complete                         |
| PE-391        | Carburetor intake adapter                    |
| PT-392        | Carburetor intake grommet                    |
| K-30          | Carburetor gasket (2 used)                   |
| SB-191        | Carburetor stud (2 used)                     |
| XA-27         | Filter screen (2 used)                       |
| RHM 832x 5/8  | Carburetor intake adaptor screw              |
| HCF 4x 7/8    | Manifold bolt                                |
| HNF 4         | Locknut (2 used)                             |
| SLW No. 8     | Carburetor intake adaptor washer (2 used)    |
| SLW 4         | Carburetor manifold washer (2 used)          |
| 09334         | Body, Upper Half                             |
| 02531         | Body Channel Welch Plug                      |
| 07903         | Body Gasket                                  |
| 06062         | Body Retaining Screw and Lockwasher (4 used) |
| 05454         | Choke Friction Pin                           |
| 07912         | Choke Friction Pin Screw                     |
| 03860         | Choke Friction Pin Spring                    |
| 01946         | Choke Lever                                  |
| 03208         | Choke Lever Retaining Pin                    |
| 08700         | Choke Shaft                                  |
| 03739         | Choke Shutter                                |
| 05430         | Choke Shutter Screw                          |
| 07804         | Float  |
| 07901         | Float Lever Pinion Screw                     |
| RHM 832x1 1/4 | Intake screw                                 |

Fig. 9



- 08332 Float Bowl
- 03311 Float Bowl Drain Screw (Small)
- 07896 Float Bowl Plug Screw (Large)
- 06910 Idle Adjustment Screw
- 05725 Idle Adjustment Screw Spring
- 05095 Idle Speed Regulating Screw
- 0788 Idle Speed Regulating Screw Spring
- 08515 Idle Tube
- 07900 Idle Tube Gasket
- 07895 Inlet Needle, Seat and Gasket
- 02510 Inlet Seat Gasket
- 08160 Main Adjustment Screw
- 0702 Main Adjustment Screw Gland
- 0676 Main Adjustment Screw Gland Gasket
- 0705 Main Adjustment Screw Screw Packing
- 0703 Main Adjustment Screw Packing Nut
- 08179 Main Nozzle
- 02395 Main Nozzle Channel Plug Screw
- 01830 Throttle Lever
- 0240 Throttle Lever Retaining Screw
- 09166 Throttle Shaft
- 08647 Throttle Shaft Return Spring
- 08646 Throttle Shutter
- 05204 Throttle Shutter Screw
- 04594 Throttle Stop Lever Pin
- 08598 Throttle Stop Lever
- 06393 Throttle Stop Lever Retaining Screw
- 06396 Throttle Stop Lever Retaining Lockwasher



**Fig. 10**

## OPTIONAL HANDLE BARS

<ul style="list-style-type: none"> <li>PEA-430</li> <li>PE-430</li> <li>PEA-435</li> <li>PE-435</li> <li>PE-439</li> <li>PT-165</li> <li>PT-166</li> <li>PT-403</li> <li>PT-405</li> <li>PT-408</li> <li>PT-431</li> <li>PE-432</li> <li>PT-432B</li> <li>PE-433</li> <li>PTA-434</li> <li>PT-434</li> <li>PT-437</li> <li>PT-438</li> </ul>	<ul style="list-style-type: none"> <li>Two-man handlebar, complete with controls</li> <li>Two-man handlebar</li> <li>Throttle cable assembly</li> <li>Throttle casing unit</li> <li>Throttle return spring</li> <li>Swivel lock body</li> <li>Swivel lock pin</li> <li>Swivel cable threaded end</li> <li>Control lever (2 used)</li> <li>Swivel lock spring</li> <li>Swivel cable</li> <li>Throttle cable unit</li> <li>Nipple</li> <li>Dual control body</li> <li>Swivel cable assembly</li> <li>Swivel outer casing unit</li> <li>Hinge pin</li> <li>Throttle pin</li> </ul>	<ul style="list-style-type: none"> <li>PT-440 A</li> <li>PT-441</li> <li>PT-442</li> <li>M-46</li> <li>F-107A</li> <li>SAEW No. 6</li> <li>SLW No. 6</li> <li>RHM 632x 5/16</li> <li>RHM 632x 3/8</li> <li>HN 1024</li> <li>RHM 1024x2 3/8</li> <li>HNF 5</li> <li>SLW No. 10</li> <li>CP-1 1/2</li> <li>Throttle clip</li> <li>3/4 Diameter Welch Plug (for plugging one-man swivel control hole in gas tank)</li> <li>Rubber handles (2 used)</li> <li>Adjusting screw</li> <li>Swivel control nipple</li> <li>Throttle pin washer</li> <li>Throttle pin lockwasher</li> <li>Throttle clip screws (2 used)</li> <li>Throttle pin screws (2 used)</li> <li>Dual control nuts</li> <li>Dual control screws</li> <li>Swivel lock nut</li> <li>Lockwashers</li> <li>Cotter keys</li> </ul>
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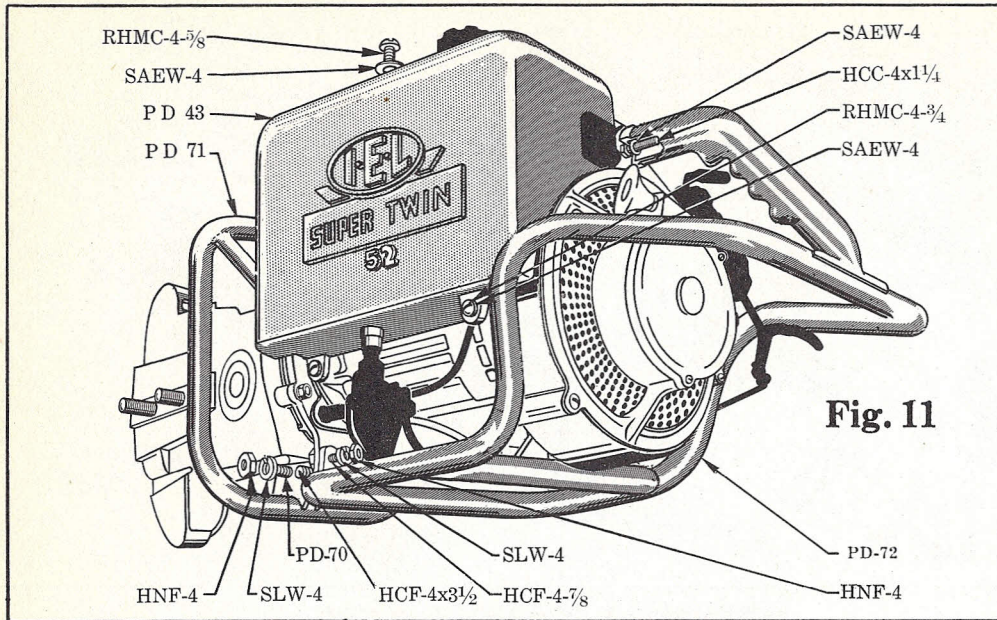


Fig. 11

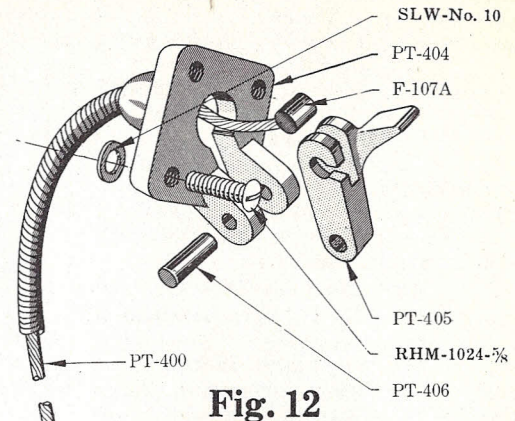


Fig. 12

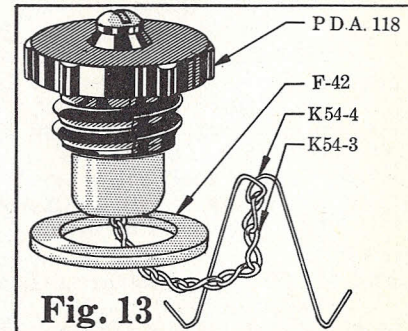
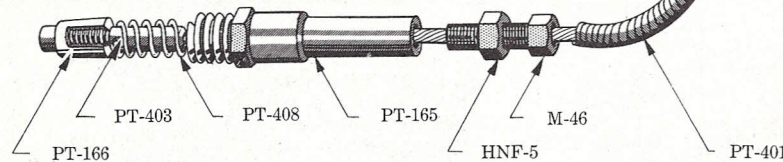


Fig. 13

## TANK and HANDLEBARS



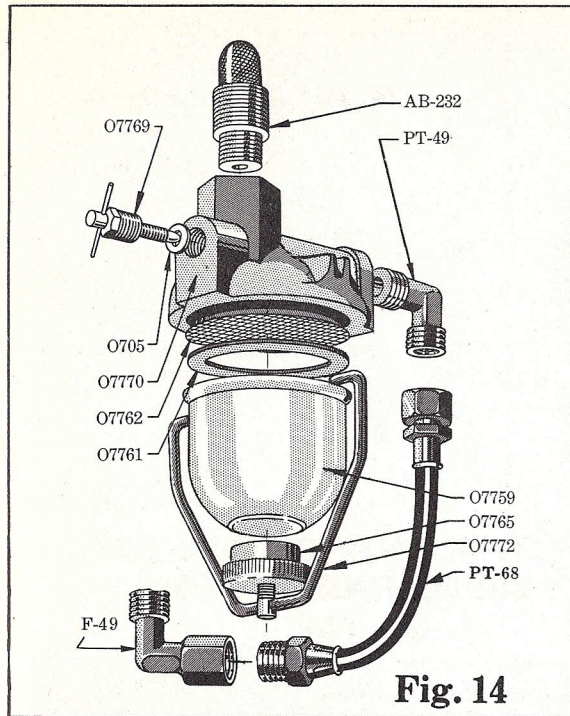
PD-43	Gas tank
PD-71	Front handle assembly
PD-72	Rear handle assembly
PD-70	Front handle stud
RHMC 4x 5/8	Gas tank side mounting screw (2 used)
HNF-4	Rear handle mounting nuts (4 used)
HNF-4	Front handle lower bracket nut (3 used)
HCF 4x 7/8	Rear handle mounting bolts (4 used)

SAEW-4	Gas tank washer (4 used)
SAEW-4	Rear handle top brace washer
SLW-4	Front handle lower bracket washer (3 used)
SLW-4	Rear handle mounting washer (6 used)
HCF 4x3 1/2	Front handle lower bracket bolt (1 used)
HCC 4x1 1/4	Rear handle top brace bolt
RHMC 4x 5/8	Gas tank screw (2 used)

## SWIVEL LOCK ASS'Y

PDA-118	Gas tank filler cap unit
PT-165	Swivel lock body
PT-166	Swivel lock pin
PTA-400	Swivel cable assembly, complete
PT-400	Swivel cable
PT-401	Swivel cable outer casing
PT-403	Swivel cable threaded end





**Fig. 14**

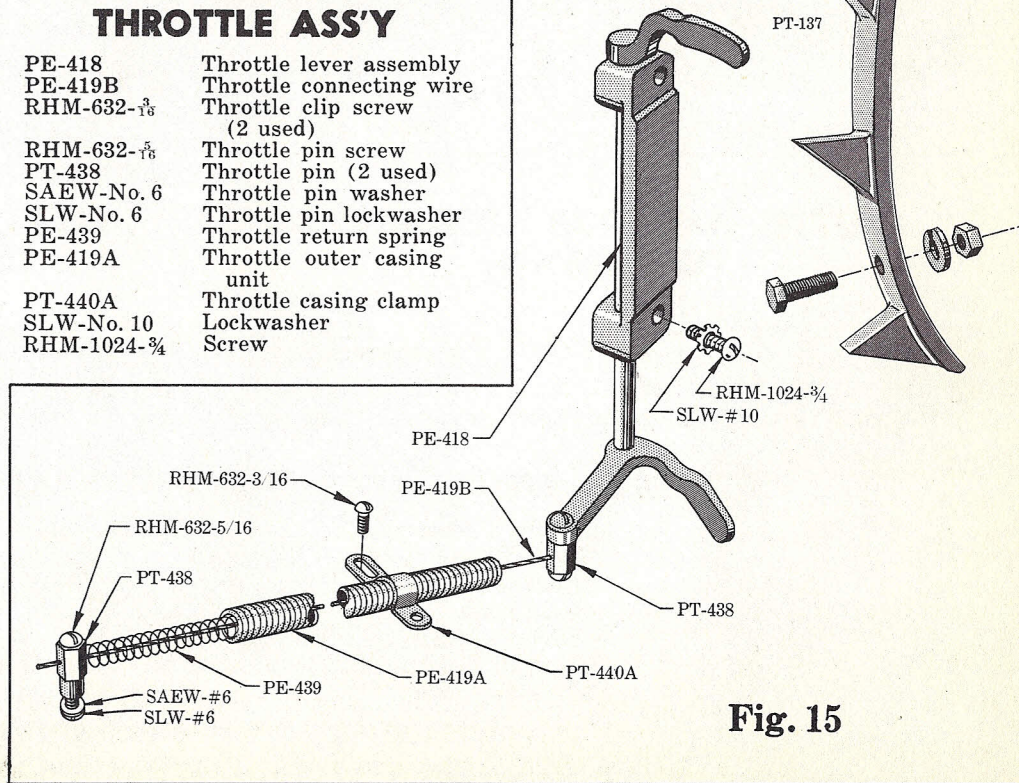
## FUEL FILTER

AB-231	Fuel filter, complete
AB-232	Fuel filter adaptor
PT-49	Elbow
PT-68	Fuel line
O705	Shut off valve packing
O7759	Strainer bowl
O7761	Strainer gasket
O7762	Strainer screen
O7765	Cup and thumb nut
O7769	Shut off valve
O7770	Strainer cover
O7772	Clamp wire and stud

## THROTTLE ASS'Y

PE-418	Throttle lever assembly
PE-419B	Throttle connecting wire
RHM-632- $\frac{3}{16}$	Throttle clip screw (2 used)
RHM-632- $\frac{5}{16}$	Throttle pin screw
PT-438	Throttle pin (2 used)
SAEW-No. 6	Throttle pin washer
SLW-No. 6	Throttle pin lockwasher
PE-439	Throttle return spring
PE-419A	Throttle outer casing unit
PT-440A	Throttle casing clamp
SLW-No. 10	Lockwasher
RHM-1024- $\frac{3}{4}$	Screw

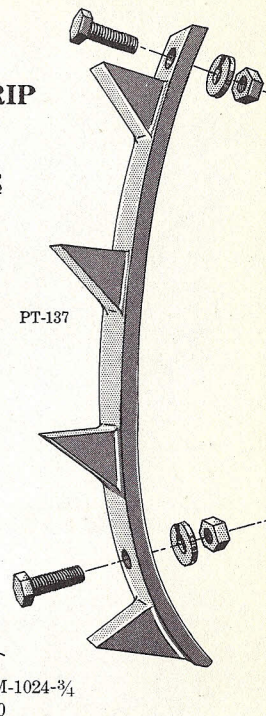
PTA-404	Swivel control assembly
PT-404	Swivel control body
PT-405	Swivel control lever
PT-406	Swivel control pin
PT-408	Swivel lock spring
F-42	Gas tank filler cap gasket
F-107A	Swivel cable ferrule
K-54-3	Filler cap chain
K-54-4	Filler cap lock spring
M-46	Swivel cable adjustment screw
RHM 1024x $\frac{5}{8}$	Swivel control body screws (3 used)
HNF-5	Swivel lock nut
SLW-No. 10	Swivel control body washer (3 used)



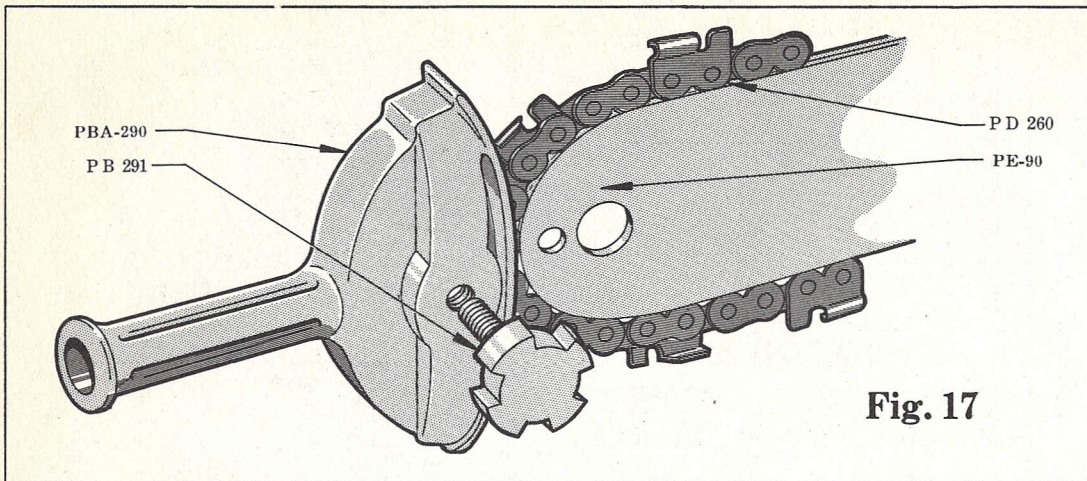
**Fig. 15**

## PIVOT GRIP

**Fig. 16**







## HELPER'S HANDLE

PBA-290	Helper's handle complete
PB-291	Clamping screw
PD-260	EEZY - FEED Planer Chain (see table for particulars)
PE-90	Cutter bar (see table for particulars)

Fig. 17

## CUTTER BARS FOR '52 SUPER TWIN SAWS

30" Beavertail Cutter Bar.....	PE90-30G
36" Beavertail Cutter Bar.....	PE90-36G
48" Beavertail Cutter Bar.....	PE90-48G
60" Beavertail Cutter Bar.....	PE90-60G

N.B.—Other sizes can be supplied on special order.

## EEZY-FEED PLANER CHAINS FOR '52 SUPER TWIN SAWS

### One-Man Type

30", 14 ga. $\frac{3}{4}$ -pitch Planer Chain.....	PD260C-30G
36", 14 ga. $\frac{3}{4}$ -pitch Planer Chain.....	PD260C-36G
48", 14 ga. $\frac{3}{4}$ -pitch Planer Chain.....	PD260C-48G
60", 14 ga. $\frac{3}{4}$ -pitch Planer Chain.....	PD260C-60G

## EEZY-FEED PLANER CHAIN REPLACEMENT PARTS

Right Planer Tooth.....	PD-238C
Left Planer Tooth.....	PD-240C
Centre Link Dud.....	F-172-14
Side Link.....	F-167
Rivet.....	F-170
Master Side Link.....	PD-169
Master Rivet.....	PD-171

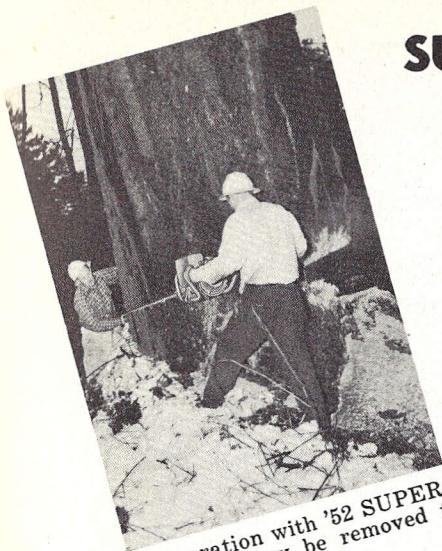
### WHEN ORDERING BAR OR CHAIN SPECIFY:

1. Saw serial number and model.
2. Length of attachment required.

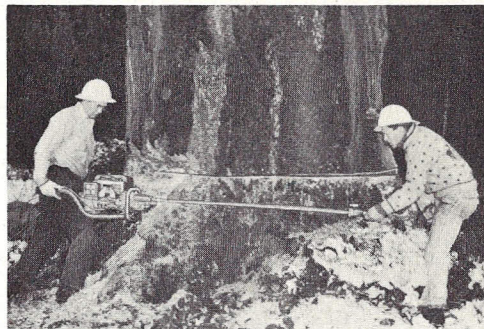


# SUPER SMOOTH, EASY HANDLING

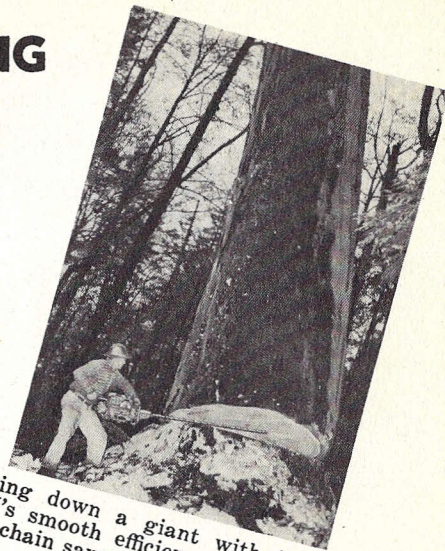
## with the I·E·L '52 SUPER TWIN



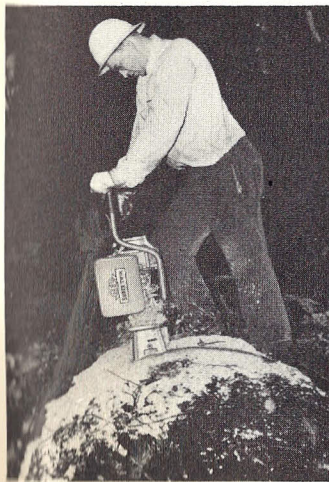
Two-man operation with '52 SUPER TWIN. Helper's handle may be removed for one-man performance.



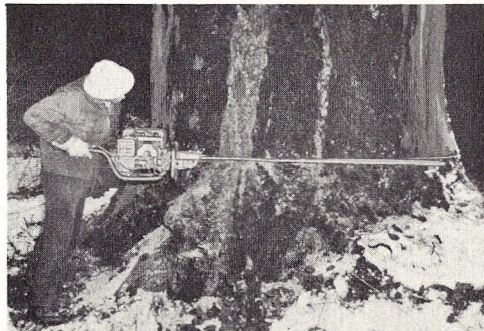
The '52 SUPER TWIN eases through the notching operation with a minimum of operator exertion.



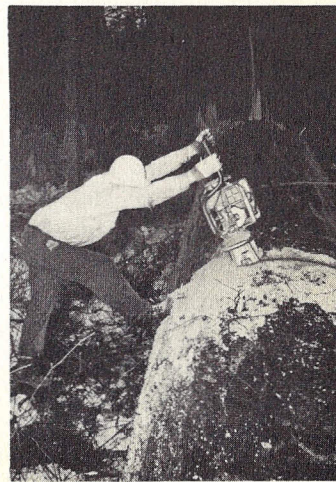
Bringing down a giant with '52 SUPER TWIN's smooth efficiency, the best among power chain saws today.



"Over The Top" bucking is done with ease by the '52 SUPER TWIN. It handles smoothly at extreme angles.



With helper's handle detached in this one-man operation, he finishes the back cut.



The efficient '52 SUPER TWIN is coming down the back on an "over the top" bucking cut.



# Instructions for Filing the I·E·L $\frac{3}{4}$ Pitch "EEZY-FEED" Planer Chain

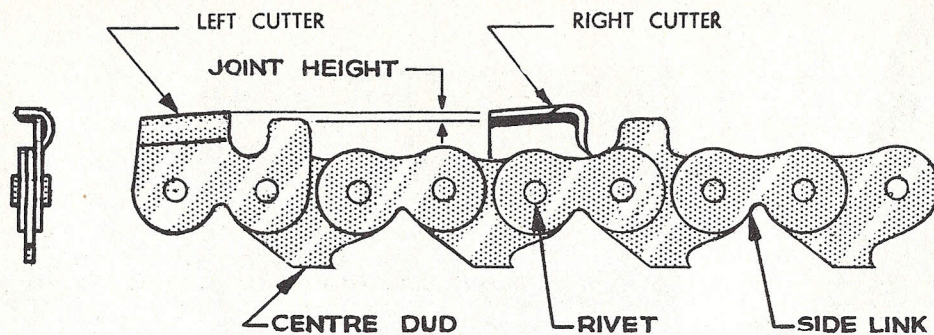


Fig. 18

## CHAIN SEQUENCE

The chain leaves the factory accurately ground and jointed. It is jointed at .025 of an inch which is a nominal jointed depth. The operator may change the jointed height to suit his own requirements. There are two cutting edges to the planer tooth, the side and top, both edges must be sharp (Fig. 19). This new planer chain is the result of a vast amount of research work and is considerably faster and more versatile than anything previously produced. It can be used for cross-cutting or ripping in any type of wood.

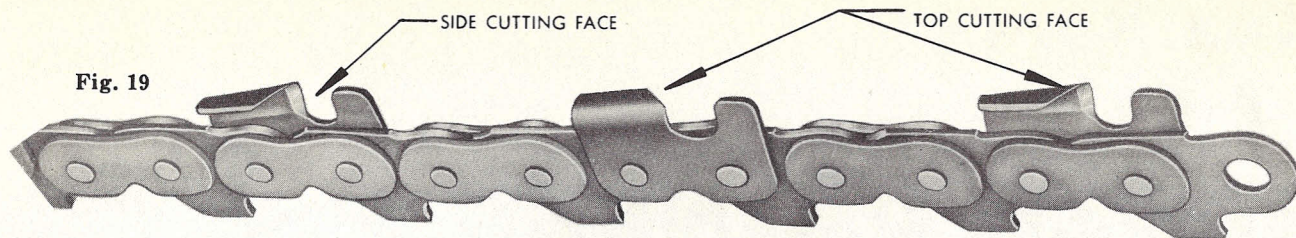
The following instructions are very general in nature in order not to confuse the beginner. As the operator becomes more expert, he will develop his own variations from the standard to suit his own particular requirements.

## SHARPENING

A general sharpening can be done right on the cutter bar. A  $\frac{3}{8}$ " round file is necessary and the angle of the cutting face should be maintained closely. The use of a  $\frac{3}{8}$ " file ensures that both edges are done at once and at the same angles.

Figure 20 shows the file in position ready for the filing stroke. Only this angle face of the planer should be filed and the amount filed off should be just enough to put a keen edge on the tooth. Since the steel of which the teeth are made is a highly heat-treated special alloy, a really sharp file is necessary and a firm, steady thrust should be used with the file held firmly. The movement of the file must be in a straight line otherwise a rounded edge will result. This rounded edge will be visible by different light





Arrows indicate the Two Cutting Faces of a Planer Tooth. Both faces must be sharp and filed at the same angle.

shades. There should be only one shade to a properly filed tooth. After sharpening the tooth, a slight burr will be noticed on the outer curve. The initial cut should be made through green wood to remove the burr. Great care should be taken to take an even amount off both the right and left cutters. By filing the teeth back evenly you ensure a true cut with no running. If the teeth are filed unevenly a chain will run to the side which has the greatest amount of drag. It must be remembered at all times that  $3/8$  " file must be employed. The use of a file less than  $3/8$  " will often result in the file cutting the lower portion of the tooth away and not maintaining a keen edge on the tops of the teeth. This will result in drag and also a hook which will impair the proper operation of the chain. The outer edge of the cutter must be vertical or sloped slightly backwards at all times. A slight touch up at regular intervals will ensure longer life to the chain rather than letting the chain become completely dull and have to remove enough metal in order to bring the edge up again.

**NOTE:** If the chain starts to run in the cut it is in dire need of sharpening.

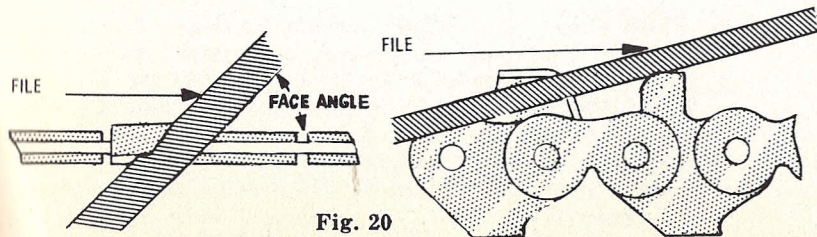


Fig. 20

### JOINTING

In the ordinary course of events, it will not be necessary to joint this chain as the factory setting should be sufficient for most purposes. It should be noticed that the jointed height is the distance that the runner is below the cutting edge of the planer (See Figure 18). The joint may be varied depending on type of wood but only by an experienced filer.

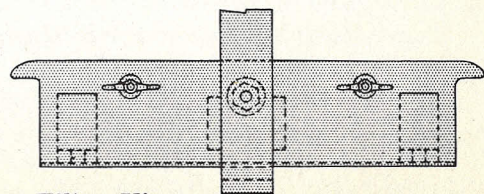
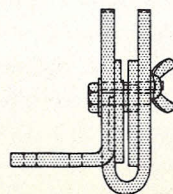
### SETTING

The set of the chain is the amount that the planers are set outwards to give clearance for the chain and cutter bar in the cut. As the chain leaves the factory, there is ample set for all purposes and there should never be any necessity to give additional set.

### FILING THE PLANER TEETH

#### Special Filings:

A planer chain is no different from any other saw so far as special filings are concerned. The face angle of the planer teeth can be varied to suit the requirements in the particular wood that is being cut.



Filing Vise

Fig. 21



**And Here's  
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# **SUPER PIONEER**

**A LIGHT ONE-MAN SAW WITH A  
HEAVYWEIGHT'S POWER**



## **LIGHT ENOUGH FOR PROFIT-BUILDING ONE-MAN OPERATION IN HEAVY LOGGING**

... yet rugged and reliable ... will take up to a 36-inch cutter bar where the going's tough. The secret? IEL's famous Dyna-Torque engine, designed purely and wholly with one job in mind ... efficient, reliable power chain saw operation.

**SUPERLATIVE ENGINEERING** ... The Dyna-Torque engine features a host of names famous the world over for rugged, reliable service — SKF and Torrington bearings, Champion spark plugs, Tillotson carburetor, Wico magneto, Pedrick piston rings — everything IEL uses is the finest obtainable. Special top-grade chrome vanadium steel for the bar and chain gives extra value where you need it.

**ALL-PURPOSE** ... Falling, bucking, limbing ... lumber, pulpwood, cordwood, fence posts, mine props, railway ties ... clearing or construction work—whatever the job, your SUPER PIONEER takes it in its stride, cuts clean and fast and comes back for more! Rain or shine ... through the hottest or the coldest day of the year, you can be sure of smooth, trouble-free operation—the SUPER PIONEER ignores the weather!



Spare parts are stocked as listed on the preceding pages by the dealer in your vicinity.

When ordering Spare Parts, Specify:

- (1) Model and serial number of saw.
- (2) Part number and description of part in full.
- (3) Complete shipping instructions.

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