

WINCHESTER MODEL 64 & MODEL 490 .22 CAL.

SPECIFICATIONS:

CALIBRE22 L.R.
CAPACITY 10 ROUNDS DETACHABLE BOX
MAGAZINE
TYPE OF FIRE SELECTIVE; SEMI AND FULL
AUTOMATIC FIRING FROM
CLOSED BOLT SYSTEM

REMARKS: LOADING, UNLOADING, AND FIRING THE WEAPON ARE ACCOMPLISHED IN THE SAME WAY AS WITH THE ORIGINAL COMMERCIAL SEMI AUTOMATIC RIFLE.

THE SAFETY SELECTOR LEVER AND ITS FUNCTION:

The safety selector lever has three position settings and is conveniently located where the thumb can manipulate it freely.

The first setting is SAFE, the second is SEMI AUTO, and the third is FULL AUTO.

SEMI-AUTOMATIC FUNCTIONING:

Set the selector lever to the semi-automatic notch. Like most of the systems described herein, the trigger utilizes a trip to engage with the sear. At this setting, the selector pin notch is deep enough to permit overtravel of the trigger to disengage its trip from the sear. This will cause the sear to bounce back to normal position during bolt travel. The trigger must then be released for each successive shot.

FULL AUTOMATIC FUNCTIONING:

Set the selector to the full automatic setting. In this setting, the selector pin notch is not as deep as the semi-automatic notch is. This is necessary to control and prevent overtravel of the trigger so the trip will not disengage from the sear. When the trigger is pressed in this mode,

the trip will hold the sear down and out of engagement with the hammer, resulting in full automatic functioning.

THE AUTOMATIC CONNECTOR AND ITS FUNCTION:

The automatic connector has a built in sear to catch the hammer (in the Squires Bingham model it is the firing pin) during rearward recoil, holding it in cocked position until its connector toe is forced up or tripped by the fully closing bolt face. This will release the hammer to hit the firing pin (this applies on the full automatic setting), to fire the weapon fully automatically.

CONSTRUCTION DETAIL:

As with most of the conversion models described herein, use of steel sheet 1/16 inch thick for the new trigger housing frame is prescribed. The trigger mechanism (trigger, sear, connector, etc.) is constructed from 1/4 inch steel plate. The grip is one piece stock secured to the trigger housing frame by a single screw mating with a cross bolt nut in the stock.

The connector cover is also a formed steel sheet about 1/16 inch thick.

Refer to diagrams for full scale illustrations and style.

NOTES FOR WINCHESTER MODEL 64 SELECTIVE FIRE CONVERSION (ALSO APPLIES TO THE WINCHESTER MODEL 490)

Except for external configuration and minor improvements, the Model 64 .22 semi automatic rifle as manufactured in Canada by Winchester - Cooley is basically the same in internal mechanism and operation as the new improved Winchester Model 490.

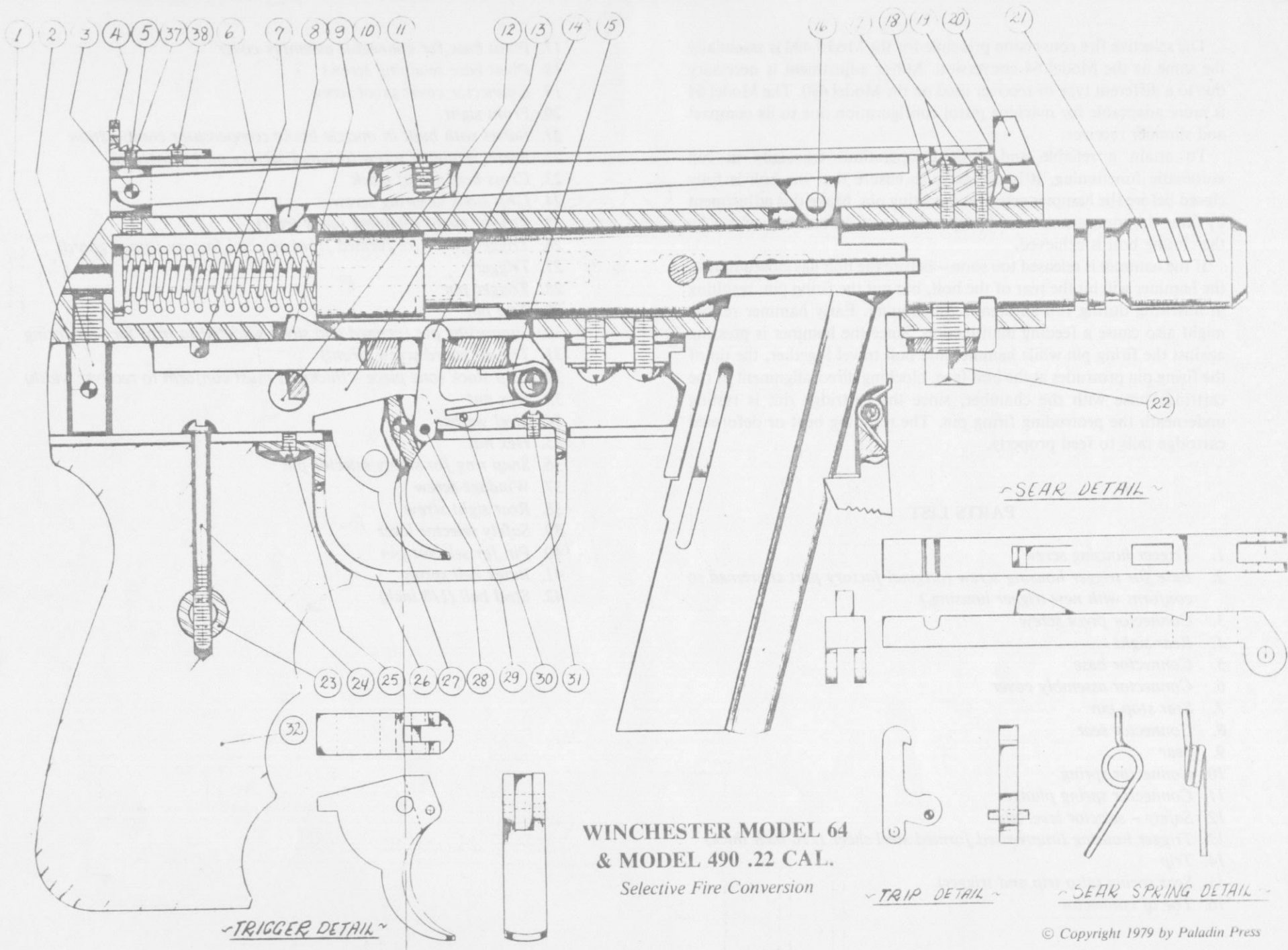
The selective fire conversion principle for the Model 490 is essentially the same as the Model 64 conversion. Minor adjustment is necessary due to a different type of receiver used on the Model 490. The Model 64 is more adaptable for machine pistol configuration due to its compact and slimmer receiver.

To attain a reliable and positive operation, especially in full automatic functioning, it is necessary to ensure that the bolt is fully closed before the hammer activates the firing pin. Make this adjustment by filing the connector toe until proper timing of the hammer release by the closing bolt is achieved.

If the hammer is released too soon—before the bolt has closed fully—the hammer will hit the rear of the bolt, but not the firing pin, resulting in misfiring during full automatic functioning. Early hammer release might also cause a feeding malfunction. Since the hammer is pressing against the firing pin while hammer and bolt travel together, the tip of the firing pin protrudes at the bolt face, blocking direct alignment of the cartridge nose with the chamber, since the cartridge rim is resting underneath the protruding firing pin. The resulting bent or deformed cartridge fails to feed properly.

PARTS LIST

1. *Trigger housing screw*
2. *Base for trigger housing screw (original factory part shortened to conform with new trigger housing.)*
3. *Connector pivot screw*
4. *Rear sight*
5. *Connector base*
6. *Connector assembly cover*
7. *Sear stop pin*
8. *Connector sear*
9. *Sear*
10. *Connector spring*
11. *Connector spring plunger*
12. *Safety – selector lever pin*
13. *Trigger housing (improvised formed steel sheet 1/16 inch thick)*
14. *Trip*
15. *Sear spring (also trip and trigger)*
16. *Toe of connector*
17. *Pivot base for connector assembly cover*
18. *Pivot base retaining screws*
19. *Connector cover pivot screw*
20. *Front sight*
21. *Barrel with built in muzzle brake compensator combination*
22. *Barrel retaining screw (original factory part shortened)*
23. *Cross bolt nut of stock*
24. *Grip stock securing screw*
25. *Trigger guard retaining screw (rear)*
26. *Trigger guard (re-formed from original factory trigger guard)*
27. *Trigger*
28. *Trigger pin*
29. *Trip pin*
30. *Supporting pin (pressed and silver soldered to trip) for sear spring*
31. *Trigger guard screw (front)*
32. *Grip stock (one piece – thickness must conform to receiver width)*
33. *Hex nut*
34. *Steel washer*
35. *Hex nut*
36. *Snap ring for safety selector pin*
37. *Windage screw*
38. *Rear sight screw*
39. *Safety selector lever*
40. *Pin for selector pin*
41. *Index ball spring*
42. *Steel ball (1/8 inch)*





DRILL $\frac{1}{8}$ " HOLE THROUGH
TO MOUNT NEW TRIGGER
HOUSING FOR MACHINE PISTOL.

CUT HERE BY HACKSAW TO
REMOVE TRIGGER HOUSING

TRIM EDGES ON BOTH SIDES
SO NEW TRIGGER HOUSING
WILL FIT THROUGH.

CUT HERE BY
HACKSAW TO FIT
FLUSH NEW
HOUSING. IF DIAM.
IS BIG, FILE BOTH
SIDES (ONLY IF
NEW HOUSING
CANNOT BE
INSERTED).

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9

RECEIVER CONNECTING SCREW

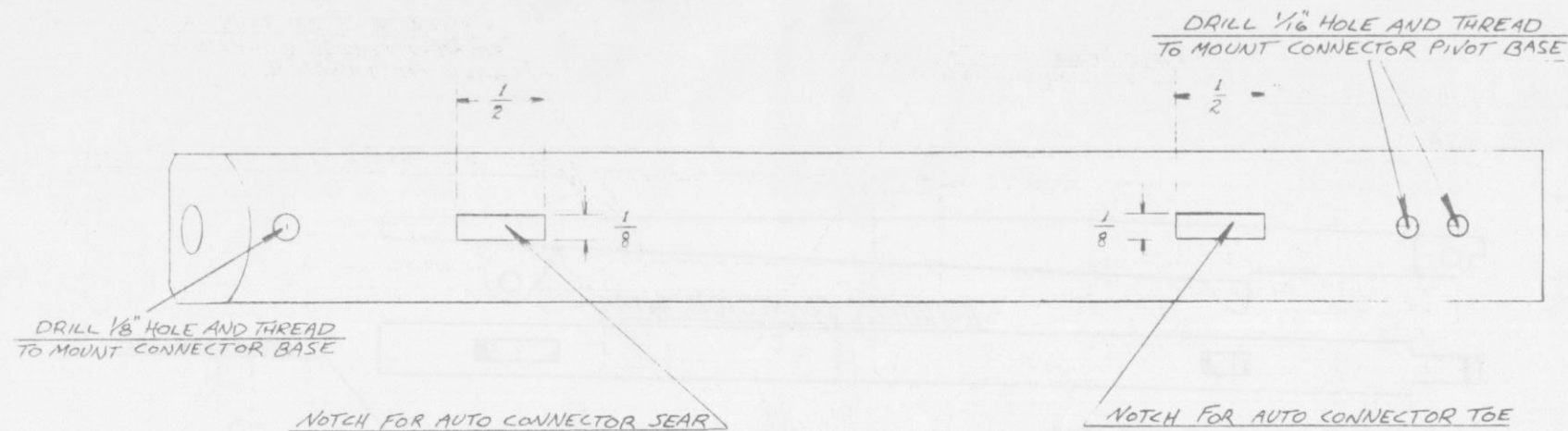
CUT HERE BY HACKSAW
FOR MACHINE PISTOL CONFIG.

ORIGINAL CONFIGURATION
FACTORY TYPE TRIGGER GUARD

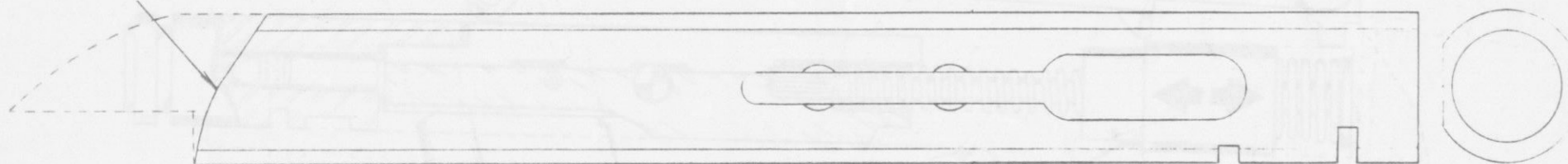
RE-FORMED FACTORY TRIGGER
GUARD FOR NEW MACHINE PISTOL
TRIGGER HOUSING. ORIG. WIDTH
REDUCED TO MATCH WIDTH OF
NEW TRIGGER HOUSING (INSIDE
DIMENSION).

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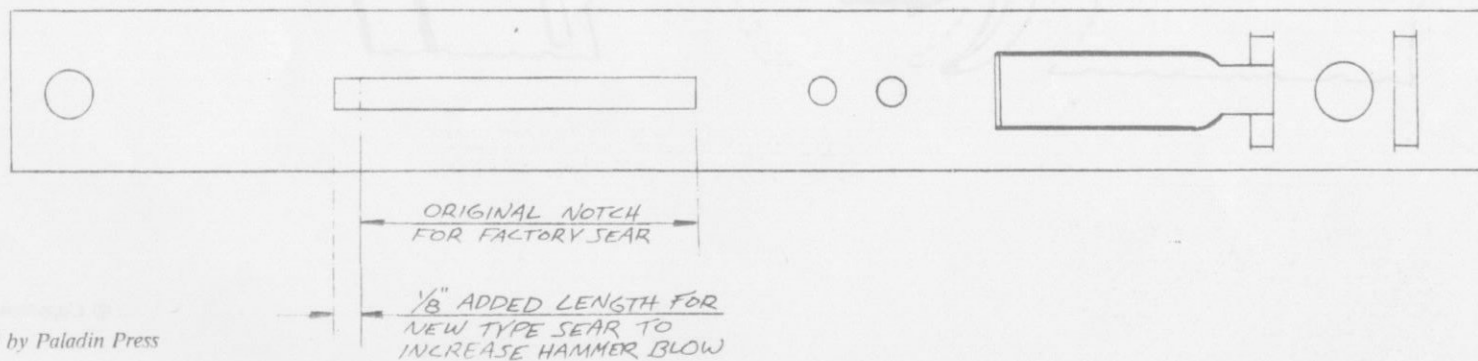
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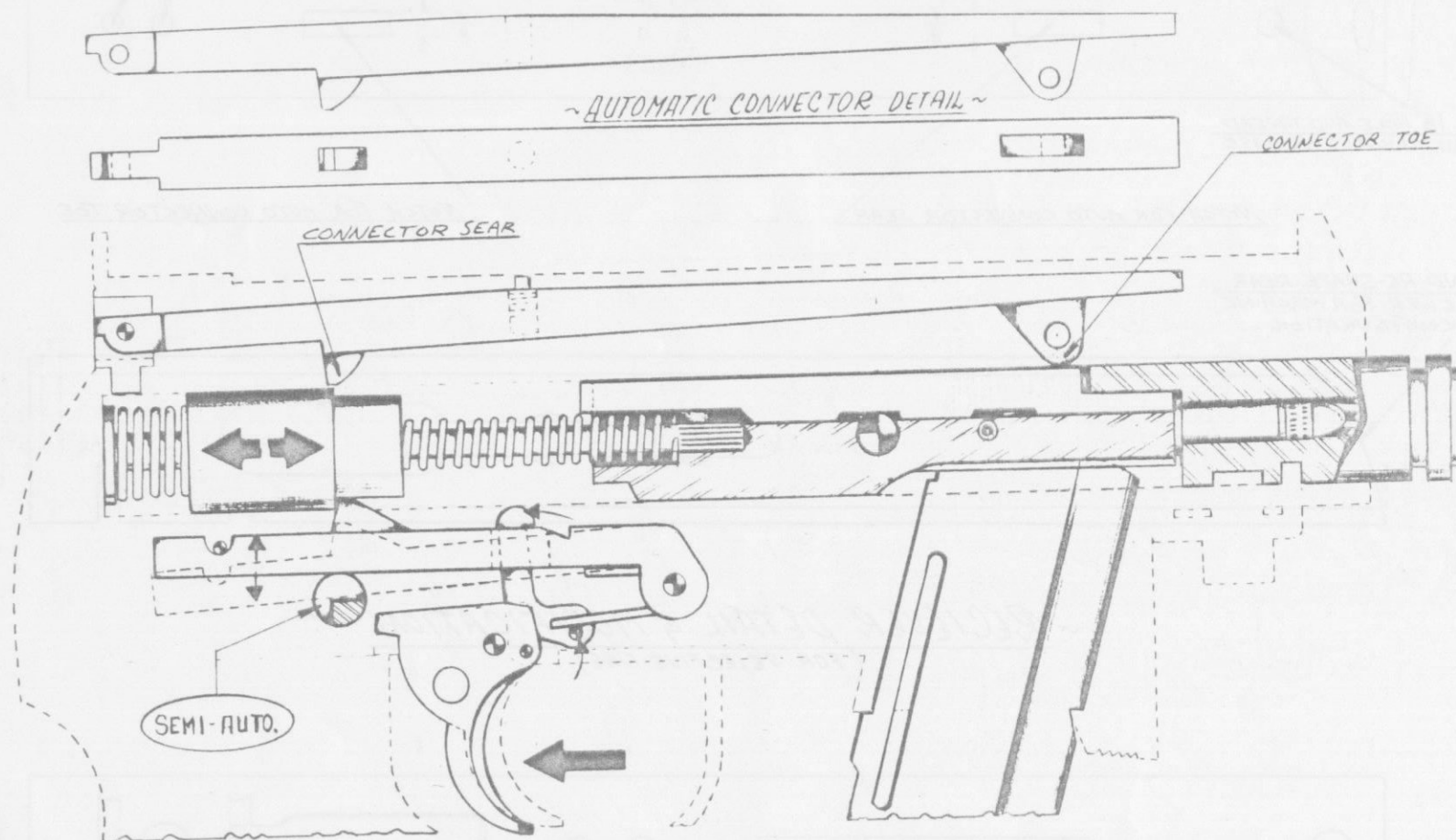


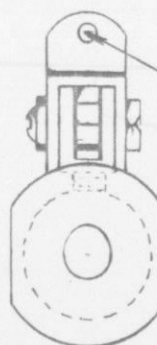
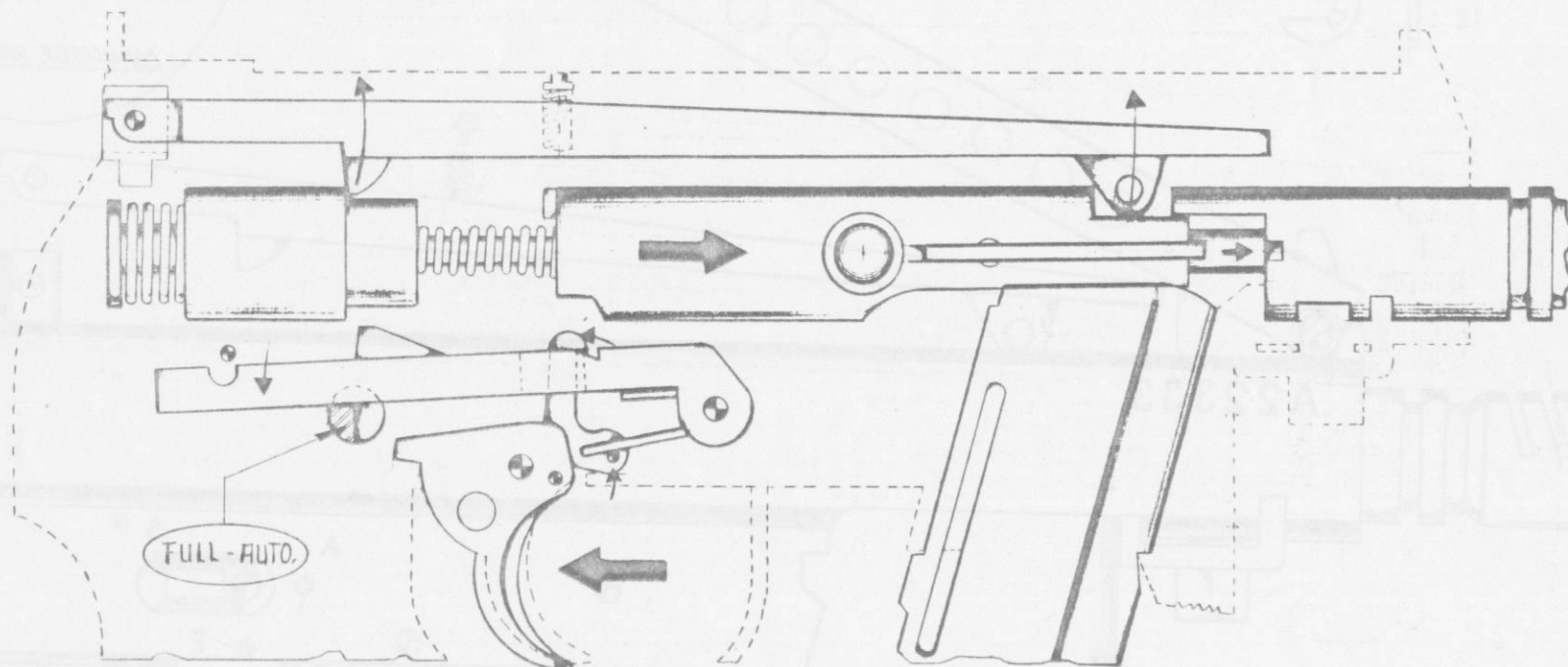
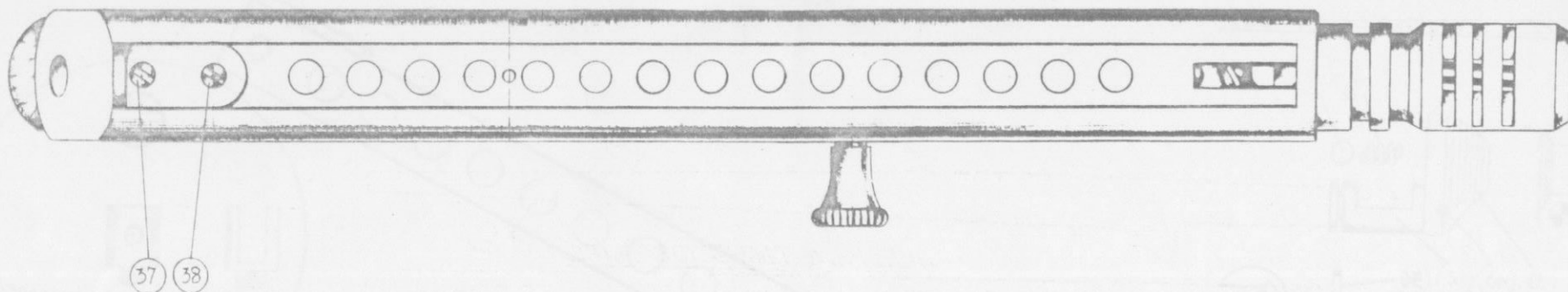
CUT AND RE-SHAPE REAR OF RECEIVER FOR MACHINE PISTOL CONFIGURATION.



~ RECEIVER DETAIL & MODIFICATION ~ (FOR SELECTIVE FIRE)

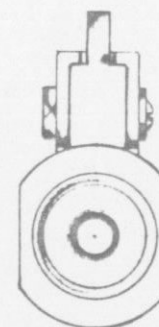






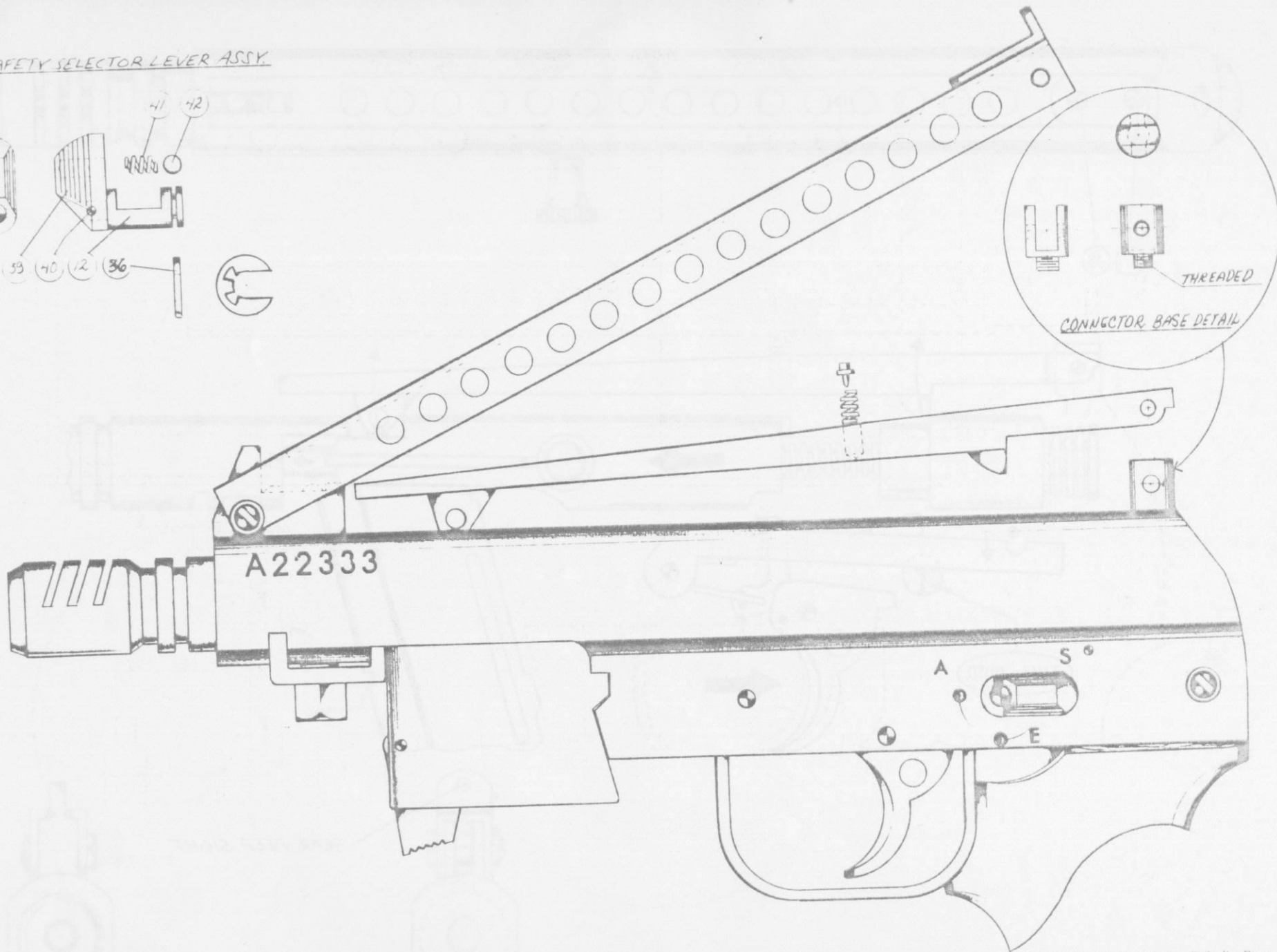
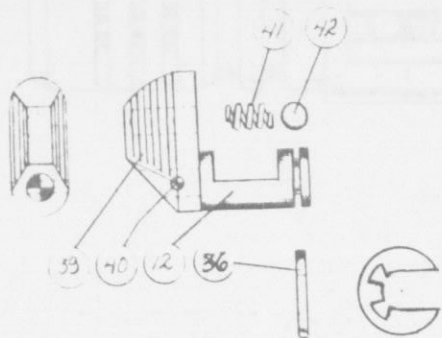
REAR VIEW

REAR PEEP SIGHT



MUZZLE VIEW

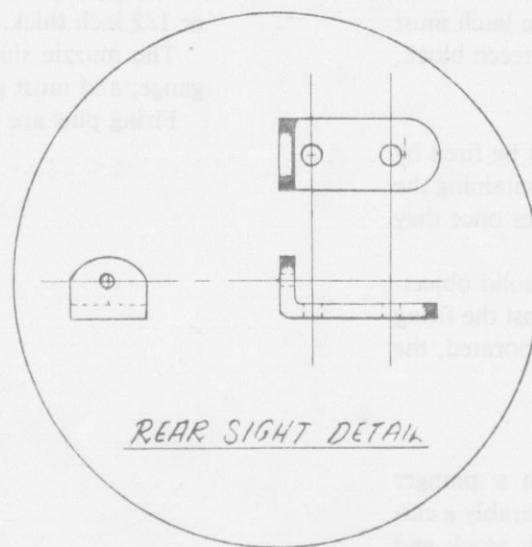
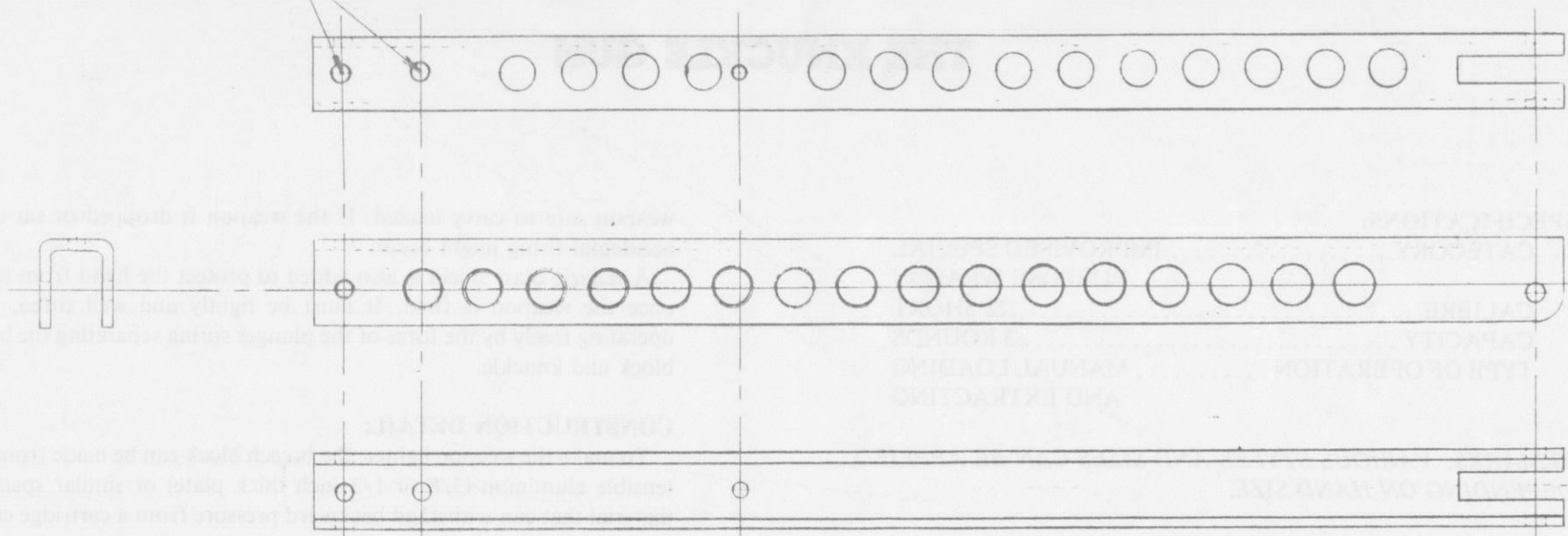
SAFETY SELECTOR LEVER ASSY.



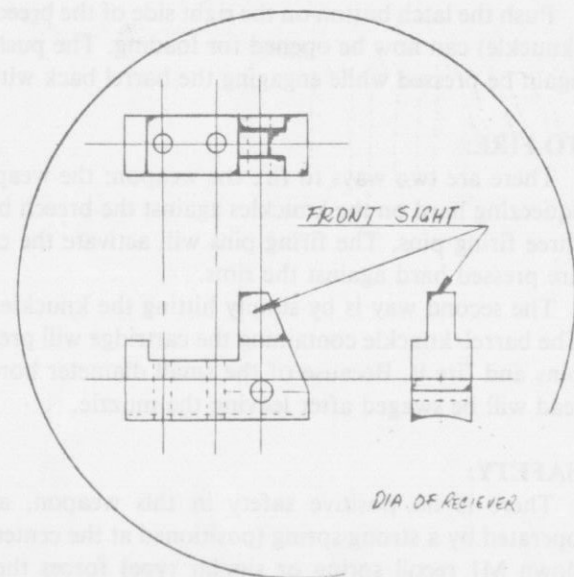
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DRILL $\frac{1}{16}$ AND THREAD

RUTO. CONNECTOR COVER DETAIL



REAR SIGHT DETAIL



CONNECTOR PIVOT BASE DETAIL