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Exerpts from FDNY Forcible Entry Manual

CONVENTIONAL FORCIBLE ENTRY

DEFINITION

Conventional forcible entry is the oldest and most versatile method of entry. Usually a two-man team, using a flat head axe and the Halligan Tool accomplishes this task. It requires skill and technique to master, and at times this may have to be done by one man. When forcible entry is required, it should be started immediately. A door should be forced in such a manner as to preserve its integrity. If speed is an important consideration in gaining entry, then conventional forcible entry should be considered. Once a firefighter has mastered the skill of using the axe and Halligan Tool (Irons), most doors, even those that are well secured can be forced quickly. With the combination of the axe and Halligan, the forcible entry team can generally force any door or occupancy. It is a simple matter of technique and leverage.




ENTRY SIZE-UP

The fire ground is a very stressful place to work in. This is especially true for the first arriving units who have to accomplish a variety of tasks immediately. Among them is making a correct entry size-up.

Prior to forcing a door: The Forcible Entry Team should: **TRY THE DOOR** to determine “**IS THE DOOR LOCKED?**” Too many times over-aggressive firefighters have forced an unlocked door. They should take note of the **Type of Door and the Locking Devices** involved. Also, what are the **Prevailing Conditions** at the scene, such as heat, smoke and visibility? They should then feel the door and or the doorknob. This may give an indication of the amount of heat behind the door. Finally, **Check For Resistance**; push in at top, center and bottom of door. This may give you and idea as to where the locking devices are secured.

To master this skill a firefighter should have a basic knowledge of the types of doors and security devices he will encounter, in addition to the skills gained through hands-on experience. Also, the firefighters must have confidence in their skills that will allow them to work through any situation under pressure.

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STEPS FOR FORCING A DOOR

Most conventional forcible entry involves several moves in order to accomplish the goal. In order to make it understandable, we have broken down the operation into three separate steps. Each step may have additional maneuvers, but once one understands the basic principles it is easy to follow and move quickly through the steps.

The recommended steps for forcing a door are: **GAP – SET – FORCE.**


FORCING *INWARD* OPENING DOORS (door swings away from you)

- 1. GAP the DOOR** - This step will make an opening in the door and/or frame to create a **purchase point. It may also force open a poorly secured door.**
 - Work the **ADZ** into the stop on the doorframe approximately 6 inches above or below the lock (see “Note” below). The tool can be set into the frame by swinging like a bat and driving the **ADZ** into the frame.
 - If there are 2 locks close together, go between them (unless they are stacked locks).
 - Push up or down on the Halligan Tool causing the **ADZ** to rotate and crease the door. Best purchase is gained when the **ADZ** end is used on the door, not the pike.

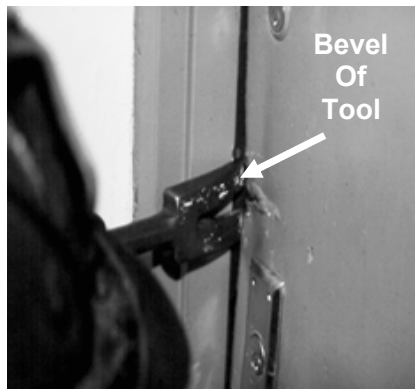


Note: The reason for the 6-inch rule is to avoid the Halligan Tool from striking the lock. The fork of the Halligan Tool is approximately 3-inches wide and most lock bodies are also 3-inches wide.

Technique Tip: You will lose power when pushing down if the pike hits the door. You will increase spread by moving the tool up.


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2. **SET THE TOOL** - This step requires the most skill. This involves working the **FORK** of the Halligan Tool into the **Gap** to spread the door away from the frame. The Halligan Tool is considered “**Set**” when the **FORK** is “**locked in**” to the inside of the doorframe.
- Position the Halligan Tool **FORK** **approximately six inches above** or below the lock cylinder. If the tool is too close, the **FORK** may hit the lock and will not go through to “**lock in**.” If it is too far away, the door may flex and the lock will not fail.
 - Place the **FORK** of the Halligan Tool, (**Bevel to the Door**) and angle the Halligan Tool to work around the doorstop. This is considered the ideal position since it produces the most spread of the door and frame and puts the most stress on the locking device. It is important for the member holding the Halligan Tool to “**walk the tool**” around the doorstop and frame.
 - This method gives a greater range of motion to the Halligan Tool since the **adz** will be facing **away** from the door and not strike the door when the door is forced.
 - It also offers a better striking position. The Halligan Tool will stand out at approximately 90 degrees to the door allowing the member with the axe more room to maneuver and deliver the necessary blows.

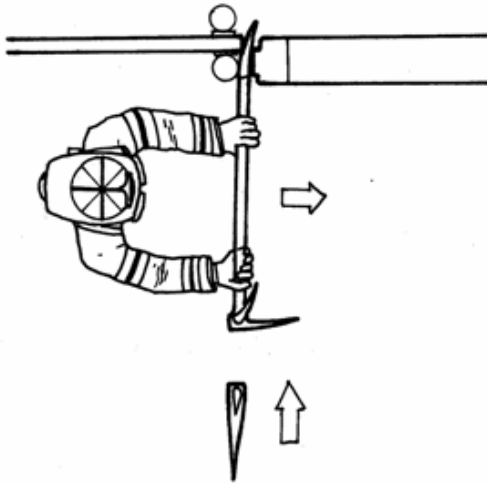


Note: When there are multiple locks closely spaced on the door (stacked locks), position the tool above the upper lock or below the lower lock. Remember the six-inch rule is a general rule and should allow the **FORK** to clear the inside to the lock.

- The **forcible entry firefighter should be between the door and the tool**. Generally the forcible entry member should have his shoulder in contact with the door. This position gives a good view of the area where the tool is being driven in and also gives full range of motion for the tool as it is pushed away from the door as it is being driven in.
- The forcible entry firefighter should keep his **eyes on the FORK end** of the Halligan Tool where it is being driven into the **Gap**.
- **Keep moving the Halligan Tool away** from the door as it is being driven in (struck).

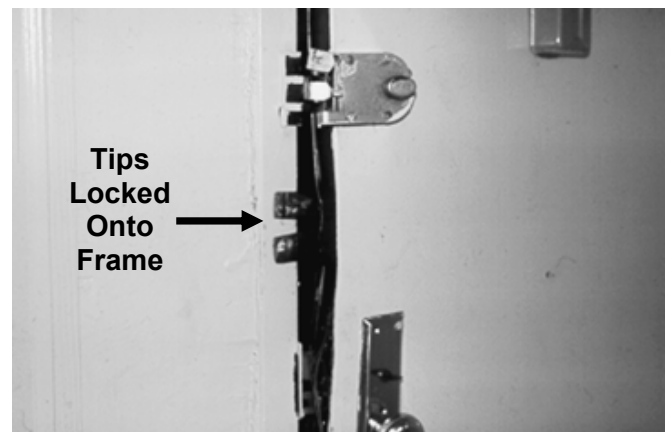
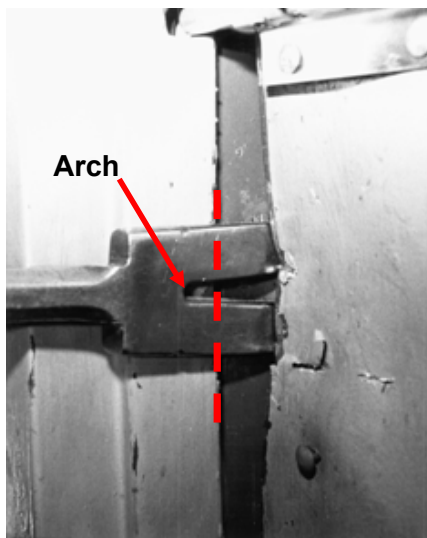
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SET THE TOOL



Technique Tip: As soon as the tip of the fork is past the edge of the door, sharply push the tool away from the door. “Spring” the door away from the frame and maintain pressure on the tool to prevent the tips from striking the frame.

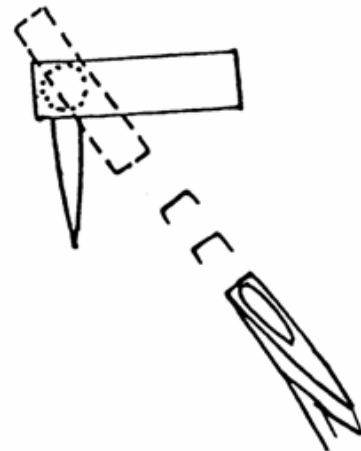
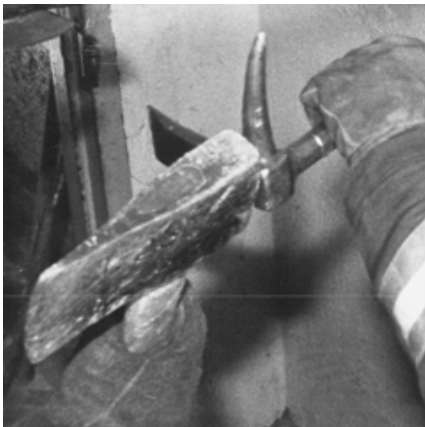
- **When** the Halligan is nearly **perpendicular** to the door, **drive in forcefully**. The **FORK** end of the tool is driven past the inside of the frame. This will insure the tool being “**locked**” into position and not slipping when pressure is applied.
- The tool is **SET** when the **ARCH** of the **FORK** is even with the **inside edge of the door / doorstop**.



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STRIKING THE HALLIGAN TOOL - Coordination and communication must be maintained between the members of the forcible entry team.

- The member holding the Halligan Tool (forcible entry firefighter) controls the operation.
- The member with the axe strikes the Halligan Tool **PERPENDICULAR TO THE ADZ.**
- The member with the axe may have to stand, crouch or kneel to obtain the best position.
- The member with the axe strikes the Halligan only when told.
- The commands “**HIT**” and “**STOP**” must be understood.




TO MAINTAIN CONTROL

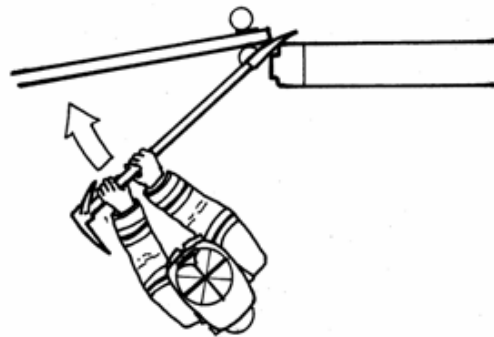
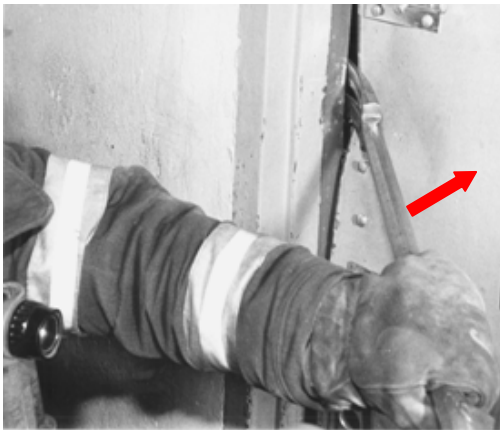
- Short chopping blows.
- Perpendicular to the adz.
- In line with the shaft.



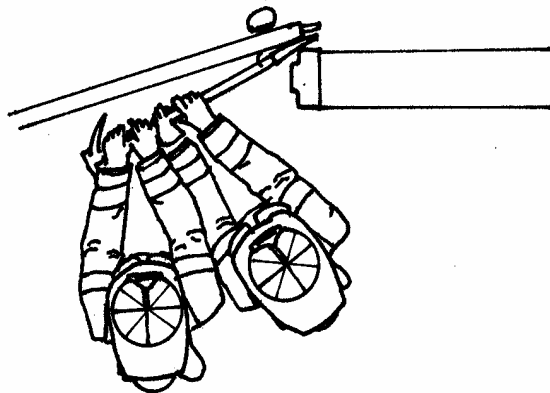
Note: As the tool is SET, more powerful blows can be delivered.

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3. **FORCE** - When the Halligan Tool is set, **force** is applied to the tool creating leverage against the door.
- Forcible entry member **changes position to Face the Door**. This gives him better position to apply pressure.
 - Ensures everyone is **ready**.
 - The other member of the team should try to control the sudden opening of the door by holding onto the doorknob or applying a hose strap to the knob.



- **Push in sharply to create maximum force.**
- If strong **resistance is met**, a second firefighter may be used to **assist**.
- As the door opens, the second firefighter must **MAINTAIN CONTROL OF THE DOOR**.



Note: In the above method, as the door is flexed from the pressure, note the presence of fire behind the door. If fire is present, make sure there is a charged line in position to protect the forcible entry team.

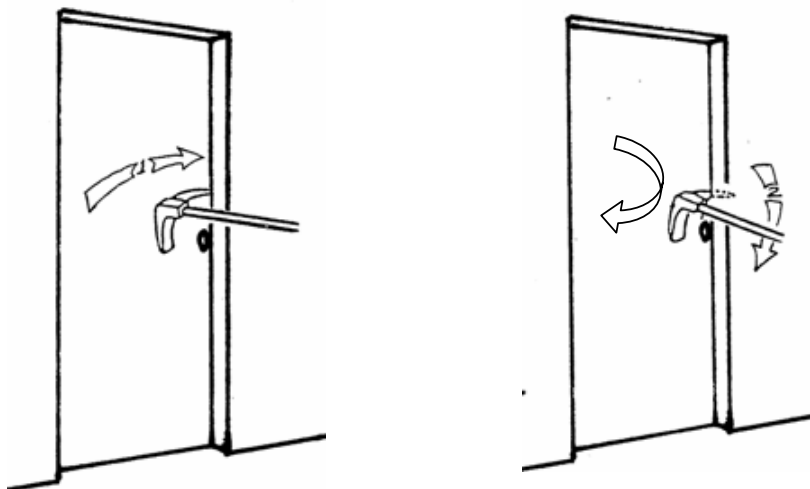
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ALTERNATE METHODS TO GAP AN *INWARD* OPENING DOOR


Pike or Adz into the Frame

Driving the **PIKE** or **ADZ** into the **doorframe** with either the axe or maul, or simply by taking a “baseball-bat swing,” should give the tool enough bite to ensure a purchase. Try to bury the **PIKE** into the frame as close to the door and lock as possible. This procedure is very quick and simple for a one-man operation. **This procedure may force the door.** It works best on wooden doors with wooden frames.

- Place the **PIKE** between the door and the doorstop, on or near the lock.
- Drive (set) the **PIKE** with the axe.
- **Push down or Pull into** the door (Gap) with the Halligan Tool.



Gapping The Door

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ALTERNATE METHODS TO GAP AN *INWARD* OPENING DOOR

Bevel to the Frame

- Place the **BEVEL** of the Halligan Tool **against the frame** and with an axe or maul, drive the Halligan Tool in.

This is usually done when there is a very tight door with stiff resistance:

- Usually a metal door with a metal frame.
- Obstruction is in the way making it difficult to strike the tool.

As the tool is driven in, it must not be driven **into the frame**. This takes a “**feel**” of the tool to do correctly.

Note: This method does not give the full range of motion to the tool. The ADZ will strike the face of the door as the member pushes towards the door.




Batter the Door

Batter the Door with a few sharp blows with the Halligan Tool, axe or maul to loosen the door to allow the adz to be slipped in. However, when using this method, you must hit the “**rail of the door,**” since this is usually the strongest area of the door.

Striking the door at other areas may weaken the door or knock out a panel such as on a raised panel door. **This is dangerous** since it allows heat, smoke and fire to vent out of the opening making further forcible entry more difficult. **Do not** knock in the panel unless there is a charged line in position.



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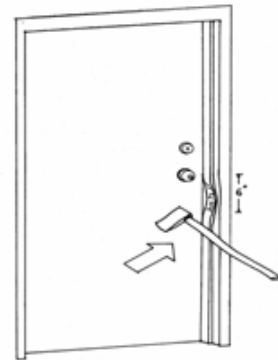
Batter the Door

Technique Tip:

If the door is set in a weak wood frame, several **sharp blows to the door right on the lock** may split the frame. This is especially true if the door contains a **mortise lock**. Note the mortise lock is set into a cavity made in the door. This may compromise the integrity of the door.

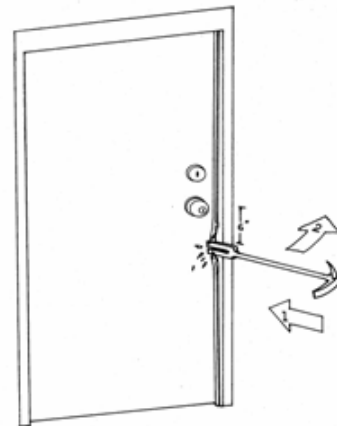
Batter the Door Frame


Batter the Door Frame by striking with an axe, maul or Halligan Tool approximately 6 inches above or below the lock and driving it away from the door to allow entry for the Halligan Tool. Some times steel frames are filled with concrete and may not crush.



Remove the Door Stop

Remove the doorstop on wood and / or Kalameine doors with the **ADZ** or **FORK** end of the Halligan Tool. This is a simple way to open a door with minimal damage. This method works best on wood doors with wood frames.



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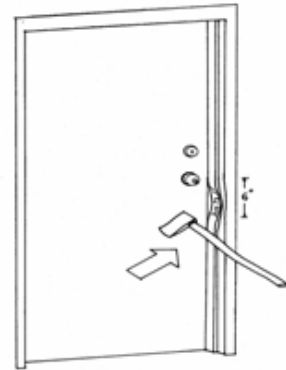
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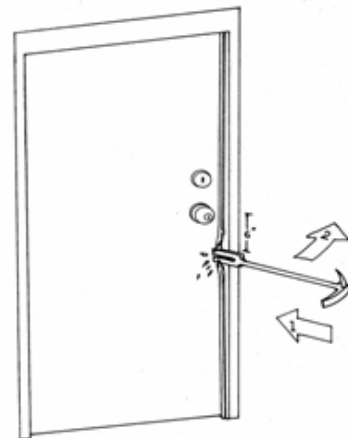
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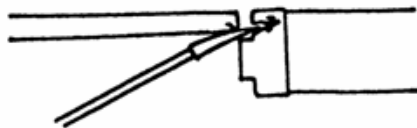
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THE HALLIGAN TOOL GETS STUCK

Problem: THE FORK IS IN CONTACT WITH THE DOORFRAME

Solution:

- Increase the angle away from the door.
- “Rock” the tool to free it.
- Re-Gap the door; reverse the tool (Bevel to Frame).
- Move further away from the lock; this makes the door easier to spread.



Contact With Doorframe

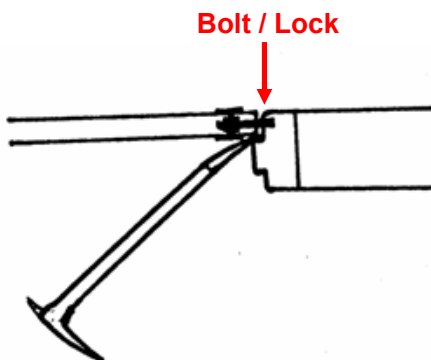


Increase Angle

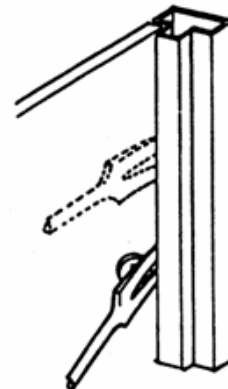
Problem: THE FORK IS HITTING THE BOLT OR LOCK

Solution:


- Reposition the Halligan Tool above or below the lock.



Striking Bolt / Lock



Reposition Halligan

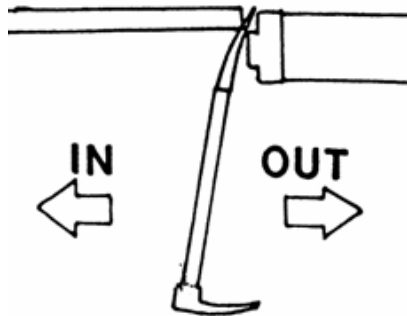
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THE HALLIGAN TOOL GETS STUCK

Problem: THE FORK IS WEDGED INTO A TIGHT DOOR

Solution:

- **Springing the Door**
 - Move the Halligan Tool **side to side** to free up the tool.
 - Push sharply and hold until the tool is driven further in.
 -

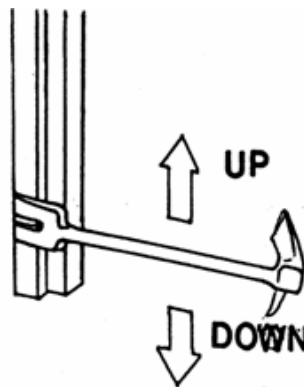



Springing The Door

Problem: THE FORK IS WEDGED INTO A TIGHT DOOR

Solution:

- **Slipping The Lock**
 - Move the Halligan Tool **up and down**. This may allow the tool to slip past the bolt of the lock.



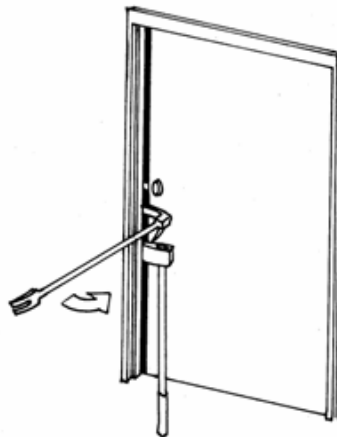
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THE DOOR DOES NOT OPEN DURING THE INITIAL OPERATION

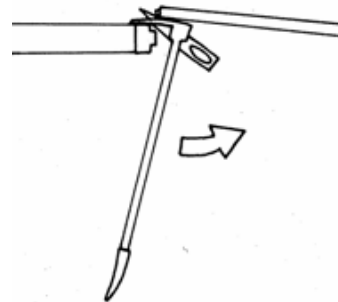
Problem: THE DOOR FLEXES AND DOES NOT OPEN

Solution: Method A – Using The Adz

- Maintain the purchase with axe or other tool.
- Slip the ADZ (or door chock) inside and behind the doorframe.
- Both members of forcible entry team **push in or pull** on the Halligan Tool.
- If the doorframe collapses and the adz gets stuck between the door and the frame, use the axe to wedge open the space, then **push or pull** the Halligan away from the door to release the adz.



Front View




Top View

Note: This method greatly increases the Range of Motion of the Halligan Tool and will break most locks.

Problem: THE DOOR FLEXES AND DOES NOT OPEN

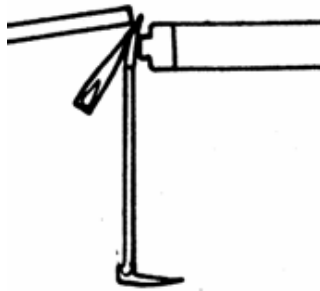
Solution: Method B – Using The Axe and Fork End

- Extra push may be obtained by placing the **head or blade of the axe between the Halligan and the door.**
- Place either the blade or the head of the axe into the door seam.
- Push in sharply with the Halligan.

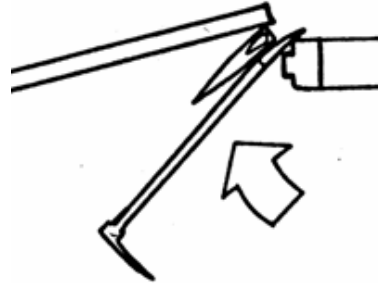
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THE DOOR DOES NOT OPEN DURING THE INITIAL OPERATION

Method B – Using the Axe and Fork End



Blade Into Door Seam



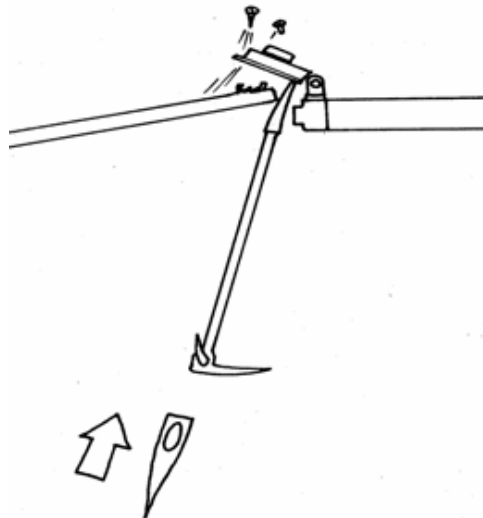
Head Into Door Seam


DRIVING THE LOCK OFF THE DOOR

Problem: DOOR OPENS PARTIALLY DUE TO STRONG LOCK(S)

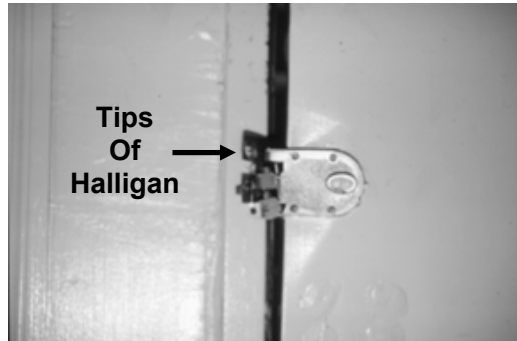
Solution:

- Place the Halligan Tool **directly on the lock** and **drive it off** the door. Driving the lock off the inside of the door takes sharp blows with the axe. Remember that you are trying to drive out the screws that hold the lock onto the door.



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DRIVING THE LOCK OFF THE DOOR




Note: If you can crush the door enough to see the locking device (especially the vertical deadbolt type), you may be able to shear off the striker with the Halligan Tool.

ANGLE IRON *INWARD OPENING DOOR* (Door swings away from you)

- Usually bolted to the door, may be partial or full length.
- The angle iron may be flat stock or shielded (interlocked with “J” channel).
- Place the **BEVEL** towards the angle iron and the tool **PERPENDICULAR** to the door between the angle iron (shield) and the frame.
- Lock the tips of the fork into the doorstop and push in sharply, **(GAP) the door with the fork between the angle iron and the frame.**
- Reset the tool and drive in **(SET).**
- Using the angle iron under the tool, **(FORCE).**



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FORCING THE “J CHANNEL” *INWARD* OPENING DOOR

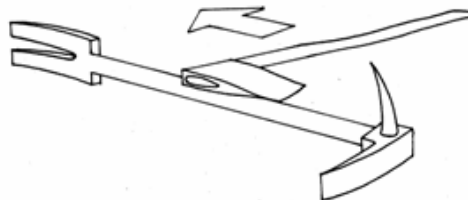
- A newer type of device that is screwed into the door frame.
- The technique is modified by driving the **FORK** end of the Halligan between the shield and the door frame.
- Drive the **FORK** in until the tips hit the door.
- Push the tool toward the door, popping the shield off the frame or bending it out of the way.
- Re-set the tool and drive it in until it is set.
- Force the door.




NARROW HALLWAY OR RECESSESED DOOR

When there is little room and/or limited visibility to swing an axe, an alternate method of striking the Halligan would be:

- Slide the head of the Axe **along the shaft** of the Halligan Tool and **strike the shoulder** of the fork end.
- **Bevel to the Frame** may give better results due to easier entry and better angle to strike the tool.



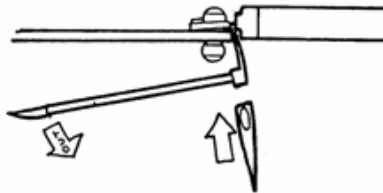
Note: The shoulder of the fork end of the Halligan must be squared off to do this. See Chapter 16.

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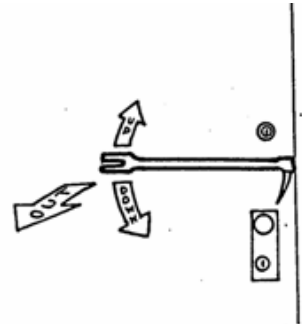
FORCING *OUTWARD* OPENING DOORS (Door swings toward you)

Using The Adz End

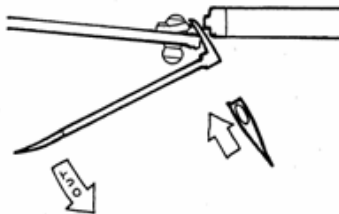
- Place the **ADZ** between the door and the frame.
- **GAP** the door by rocking the tool **up and down** to spread the door from the frame.
- **SET** the tool, and pry the door out by **pulling** on the Halligan so the **ADZ** can be driven in. Be careful not to “**bury the tool**” into the doorstop. See Chapter 16.
- **Force** the door, set the **ADZ** end around the inside of the door.



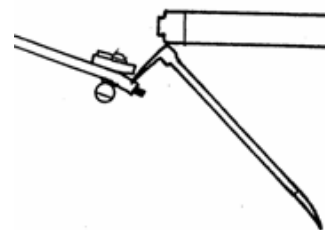
Gapping The Door (Top View)



Gapping The Door (Front View)




Set The Tool (Top View)



Force The Door (Top View)

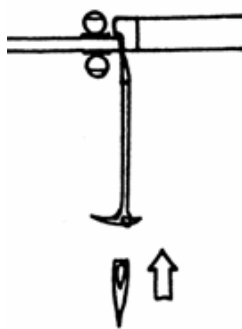
Note: The firefighter faces the door at all times.

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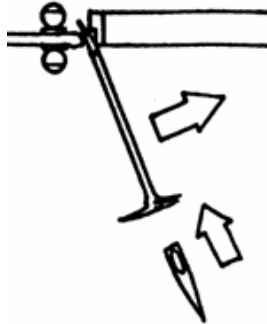
FORCING OUTWARD OPENING DOORS (Door swings toward you)

Using the Fork End

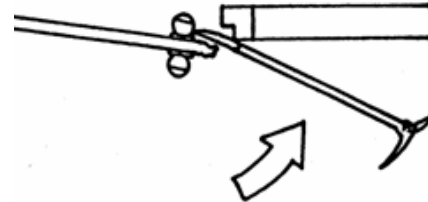
- **GAP** the door by placing the bevel side of the **FORK** toward the frame, just above or below the lock or hinge.
- **SET** the tool, pry the door by **pulling** out on the Halligan so the **FORK** can be driven in past the inside frame. Be careful not to “bury the tool” into the doorstop. See Chapter 16.
- **FORCE** the door, set the **FORK** end around the inside of the door and by **pulling or pushing** the Halligan Tool *away* from the door (toward the wall).
- In order to use this method, the Halligan Tool must have sufficient room to allow the movement of the tool away from the door



Gap (Top View)



Set (Top View)



Force (Top View)

Note: These methods will be dictated by the configuration of the building or any obstructions near the door.


PROBLEMS ENCOUNTERED WHEN FORCING *OUTWARD* OPENING DOORS

Problem: **RECESSED DOOR OR OBSTRUCTION**

Solution:

- To allow the **ADZ** to be driven in and around the door stop and to provide sufficient space for the **ADZ** to move away from the door.
 - Make a hole in the wall (if possible), for the movement of the tool.
 - **GAP – SET – FORCE** the door.



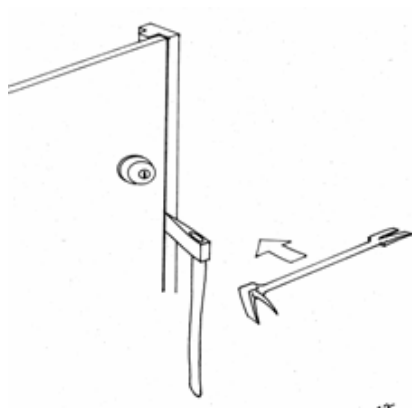
	Cincinnati Fire Department Fire Training Supplement DRILL BOOK	SECTION #1 General Fire Fighting
Date: April 2018 Section #: 4	TOPIC TITLE: Conventional Forcible Entry Techniques	Total # of Pages: 21 Topic #: 17

PROBLEMS ENCOUNTERED WHEN FORCING *OUTWARD* OPENING DOORS

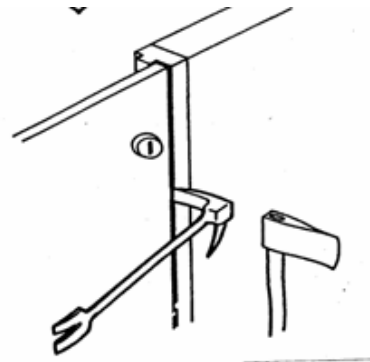
Problem: **DIFFICULTY GETTING A PURCHASE**
 (Tight Seam between Door and Frame)

Solution:

- Use the **Blade** of the axe.
- Use the **Fork** or **Adz** end of the Halligan.
 - Tilting the **Adz** up or down may start the purchase easier.



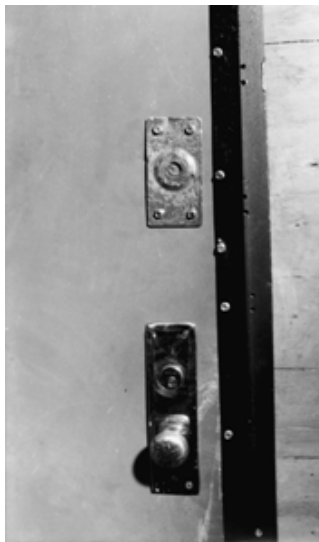
Blade of Axe




Adz of Halligan

METAL STRIP ON THE EDGE OF THE *OUTWARD* OPENING DOOR

Additional security may be installed on these doors by bolting a metal shield to protect the space between the door and the frame. It may be a full-length or partial shield. Dealing with the shield will require an additional step before proceeding to **Gap – Set – Force**.



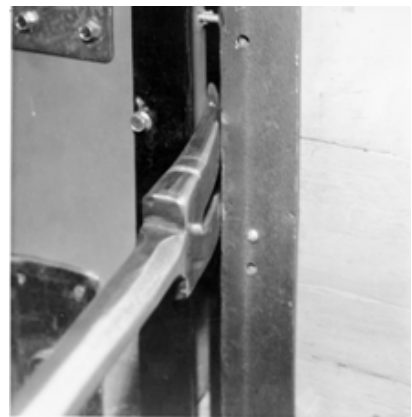
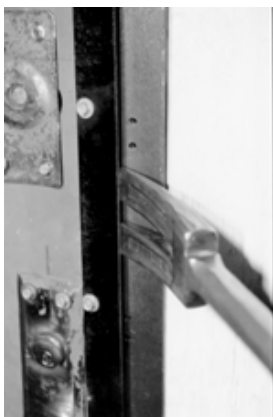
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METAL STRIP ON THE EDGE OF THE *OUTWARD* OPENING DOOR


- Drive the **ADZ** end under the edge of the metal strip and push the tool toward the door. Work the **ADZ** between the door and the frame, and drive in to establish a gap.



- Drive the **FORK** end under the edge of the metal strip and push the tool back toward the door.
- Work the **FORK** between the door and frame. Reverse the tool if necessary.



Reverse the Tool if Necessary

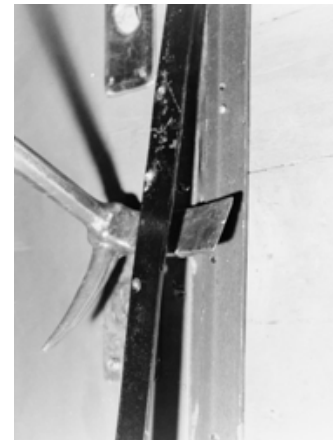
	Cincinnati Fire Department Fire Training Supplement DRILL BOOK	SECTION #1 General Fire Fighting
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Section #: 4		Topic #: 17

METAL STRIP ON THE EDGE OF THE *OUTWARD* OPENING DOOR

- Drive the **ADZ** end between the door and shield, bending the shield away to allow entry of the Halligan Tool.



- Shear the bolts and pry, bend or remove the shield as a last resort.



Note: At times if the angle iron is secured well, it may assist you in opening the door.
If not, then you have to remove it to access the door.