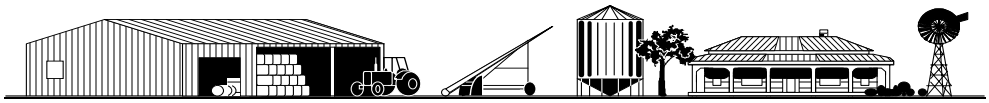

Australian Centre for Agricultural Health and Safety

The Gate Latch Booklet

10 easy to use gate latches for on the farm

Title: The Gate Latch Booklet – Modifying gate latches for use by disabled farmers

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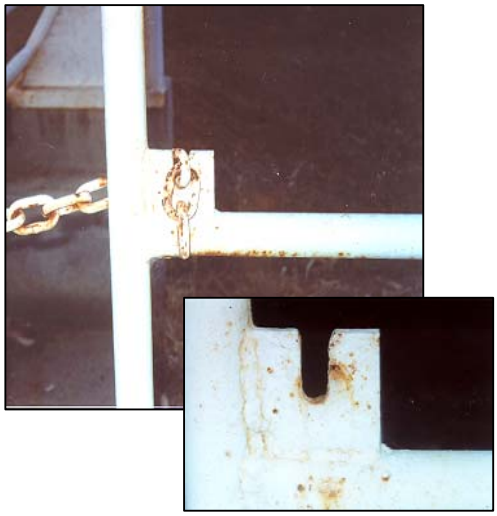
This pamphlet is designed to provide farmers and farm workers with upper limb limitations and reduced dexterity and flexibility of the fingers and hands with information about how to improve access around the farm by modifying gate latches.

Following are some suggestions for modifying gate latches. A brief description of each gate latch is given beside each suggestion. In order for these gate latches to work most effectively the gates need to be free swinging.

Often the existing gate latches can be modified with the use of some readily available materials and common workshop tools. The cost of each idea is an estimate only, often the greatest cost will be the time taken to make the changes.

On the final page are some ideas, which may help to eliminate the need to open gates at all.



Chain and Slot Gate Latch

Description:
A chain is bolted to the stay. A slot has been cut out of a piece of flat metal and welded into the corner of the gate bars. The chain sits through the slot and is held securely.

Cost:
Minimal

Advantages:
The gate can be opened one handed.

Disadvantages:
Need dexterity and flexibility in the fingers to grip the chain, as well as coordination to place the chain in the slot when closing.

Hook and Loop

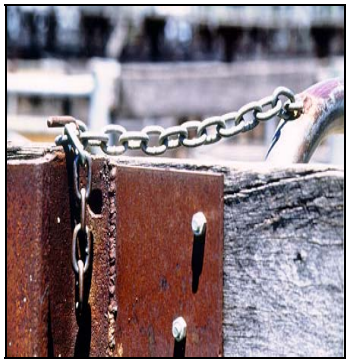
Description:
A quarter inch rod in bent at 90° and welded on the stay forming the post over which the 'D' shaped loop can easily be placed.

Cost:
Minimal.

Advantages:
This gate latch has been recommended by a lot of farmers. It can be opened one handed or with the use of a prosthesis.

Disadvantages:
Need reasonably good coordination to place the loop over the hook.

Hook and Chain 1



Description:
A length of chain has been welded to the top rail of the gate. A hook has been made out of a link of chain and has been welded to the top of the stay, the chain is linked through the hook.

Cost:
Minimal.

Advantages:
The gate can be opened one handed.

Disadvantages:
Need dexterity and flexibility in the fingers to grip the chain, as well as coordination to latch and unlatch the gate.

The gate is latched at the top rail, if an animal hits it from the bottom it may unlatch or bend the gate.

Hook and Chain 2

Description:
A hook has been cut out of a railway iron stay using a oxyacetylene welder. A length of chain has been welded onto the top rail of the gate. The chain can be looped over the hook on the stay.

Cost:
Minimal.

Advantages:
Gate can be opened using one hand, with minimal strength required.

Disadvantages:
Need fine motor skills and flexibility in the fingers to loop the chain over the hook.
The gate is latched at the top of the gate; if an animal hits it from the bottom it may bend the gate.

Hook and Hole

Description:
A large hook has been attached to the end link of the chain, which is welded onto the gate. A hole has been cut in the iron post stay with an oxyacetylene welder. The hook can easily be placed through the hole.

Cost:
Minimal.

Advantages:
The gate can be opened one handed.

Disadvantages:
Need reasonably good coordination to place the hook in the hole.

Need reasonably good wrist flexion to take the hook out of the hole.

Bolt Action Slam Lock Gate Latch

Description:
The handle pulls back against a spring, which is located at the rear of the bolt, releasing the pin from the hole. To close the gate the bolt will slide along the tongue of the stay until the bolt clicks into the latch hole.

Cost:
Available commercially $35.

Advantages:
Can be used with a prosthesis or one handed, with minimal coordination. The gate will automatically latch when the bolt is pushed against the post. Gate can be closed quickly and securely.

Disadvantages:
Need upper limb strength to pull back against the spring.

Slam Lock Gate Latch

Description:
By pulling the handle up the internal spring pulls the pin out of the hole and the gate is released. To close the gate simple push the gate up to the post and the pin will slide along the tongue into the hole.

Cost:
Available commercially $35.

Advantages:
Can be used one handed or with the use of a prosthesis.

Disadvantages:
Need upper limb strength to pull up against the spring.

Vertical Slam Lock Gate Latch

Description:
This slam lock latch works on the same principle as the examples described above. The bolt action is spring loaded. Pulling down on the loop releases the bolt from the hole.

Cost:
Available commercially for approximately $45.

Advantages:
Can be used one handed or with a prosthesis.

Disadvantages:
Need upper limb strength to pull down against the spring.

Need coordination to release the pin into the hole when closing. This can be easily modified by adding a tongue, which the bolt can slide against until it is guided into the hole.

Pin and Slot

Description:
The pin is secured to the stay with a chain and is dropped into a slot. The angle of the slot adds extra security so the gate wont open when pushed against by an animal.

Cost:
Estimated $15-$20 depending on materials used.

Advantages:
Can be opened quickly using one hand.

Disadvantages:
Need coordination to place the pin into the slot. A slightly larger slot may help to eliminate this problem.

Need flexibility and strength in the fingers to grip the pin.

The chain securing the pin to the stay may get twisted, making it difficult to pull the pin out.

Pop Hole

Description:
A small gap approximately 40-50cms is made in an existing fence. A piece of 20mm pipe bent at 90° is bolted into the gap to stop calves from walking through it.

Cost:
Will vary depending on the materials used.

Advantages:
Can exit the yard quickly without needing to open or shut a gate. Eliminates the need to climb over the fence.

Disadvantages:
Need mobility to get through the opening.

An alternative to the Pop Hole is to place a panel across a corner of a yard leaving a gap at one end. The yard adjoining the first yard also having a panel across the corner and a gap is made in the fence adjoining the two yards, similar to a turnstile. The panels across the corners also help to prevent the cattle from nosing into the corner and being difficult to ring around the fence.

Installing cattle grids, or ramps, into frequently used paddocks is another alternative to opening gates. These can be purchased commercially or made on farm.