

A rustic wooden fence made of weathered logs and posts, set against a backdrop of dense green foliage and trees. The scene is captured in a natural, slightly overcast light, with some sunlight filtering through the leaves.

Fences

FOR TOWN AND COUNTRY

John Stacpoole

PREFACE

Why the ongoing strong interest in Do-It-Yourself?

The obvious reasons are economic; we save money by using our own labour – and this reason is still valid for some, but not all, Australian D.I.Y. devotees.

For others, who can no longer see, hold and feel the results of their creative efforts in their workplace, D.I.Y. activity may supply the missing feeling of fulfilment we all need. Who can seriously compare a final row of figures on a spreadsheet, or a well written legal opinion, with the gratification of designing and building your own picket fence or dry stone wall.

Over recent years, D.I.Y. activities have expanded in line with the increased affluence in our society; new expressions, 'D.I.Y. home renovator', 'hobby farmer' and 'weekend workshop' are in common use and participants now have easy access to the knowledge and equipment required to fully enjoy their activities – both in reference books and as hands-on instruction.

Erecting a fence may, to most of us, seem a rather prosaic pursuit; after all, fences in all their myriad forms are generally built to preserve and protect; they provide security and sometimes make a statement; they are a practical necessity for most suburban dwellers, and an integral part of any farm. They are also a relevant part of Australia's history, and your fence will become a part of your history.

Fences have been an essential part of rural life since convict days, and the revision of this popular book has enabled John Stacpoole to include an illuminating short history of rural fencing in Australia. This, along with an introduction to understanding and learning the ancient craft of dry stone walling, provides some interesting background information to the do-it-yourself building enthusiast.

Detlef Thieme, July 2003

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PART ONE — General & Legal

However the courts generally consider it reasonable to have a fence and keep it in good condition.

In particular cases, a fence can be legally required. Some examples are:

Some housing developments have restrictive covenants controlling fencing

- *Swimming pools must be fenced*
- *Dog owners have a duty to prevent their dogs wandering at large so if the dog goes outside the house, the yard must be fenced*
- *Fencing may be required as a condition of town planning approval.*

The above conditions apply in South Australia and will not necessarily be the same in other States so check with your local authorities. There may be many other exceptions to this ruling, particularly in the outer suburban and rural sectors with regard to containment of farm animals and control of vermin. [See Part 2—Rural Fences.]

WILL MY FENCE NEED COUNCIL APPROVAL?

Regulations covering erection of fences differ widely from State to State and even between councils in the same State. These regulations mainly lay down height restrictions on both front and dividing fences. In the case of brick and masonry front fences laid on a concrete or similar foundation, such foundations would need to be approved by the council as a poorly constructed fence could endanger passersby by falling over.

In order to ascertain the rules in your area, we suggest you make a phone call to the local council at the early planning stages.

This situation can also apply where the occupier is leasing Crown Land.

The foregoing guidelines can apply to both rural and suburban fences.

Anyone proposing to build a dividing fence should carefully check out any situation where the occupier of an adjacent property is not the owner; it could be the difference between paying all or half of the construction cost. All parties must also fully understand and accept the specification to which the fence will be built.

FENCES AND RETAINING WALLS BETWEEN ADJACENT PROPERTIES — ARE THEY THE SAME?

The answer to this frequently asked question is that although they may look similar to solid fences, retaining walls have a very specific function and as the regulation, planning, design and construction of retaining walls and terraces are separate specialist subjects, they are beyond the scope of this particular book.*

In all conventions and regulations relating to common dividing fences it is assumed that the natural level of the land on both sides of the fence is the same and that the natural contours of the land have not changed on either side of the fence line.

Retaining walls as dividing walls between properties can create specific problems including:

On which side of the boundary line is the wall to be built?

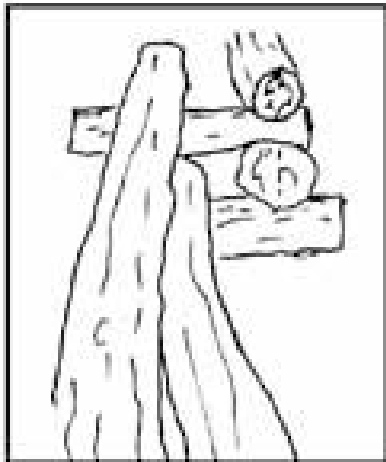
Graham Falls, a Master Bush Carpenter, whose skills with any of his 80 axes is legendary, was engaged to co-ordinate the actual building and he again proved his skill with the broad axe, the essential tool of the old bushmen.

He holds the title of “Bush Tools Tutor and Demonstrator” with the Canberra University and has built or renovated huts in Queensland, NSW, Victoria and Tasmania.

After weeks of planning the hut was erected in four days over Easter 2003, exactly three months to the day since it burned down.

The work of the Association is ongoing and in order to achieve its goal of replacing many more huts and stockyards, it needs the full support of those for whom Australia’s rural history has some real meaning.

For more information on the Victorian High Country Huts Association and their aims, see Part Five, “Advice and Information”



Chock and-log fence

Chocks laid at right angles to the fence line have two notches cut at the

Bush Carpentry

The development of rural fencing would not have been possible without the inherent ‘bush carpenter’ skills of the pioneers as aptly described in the following extract from ‘*Challenge of the High Country*’ by Tor & Jane Holth:

Tom’s Uncle Jack told him, ‘The secret of being a bush carpenter is first of all to use round timber and the second is to adapt second-hand material to first-hand needs. If you wanted something you had to damn well make it and if you didn’t know how, you had to experiment until you produced it. Round timber is timber out of the bush and you can’t put a square and pencil on it like you can sawn timber — you’ve got to use your eye and rough measurements and it takes some doing.’



The broad axe, the adze and the mortising axe—tools for constructing huts and fences in the high country. The adze was usually used for trimming timber members; worked while either astride the branch or from the side, it often caused severe shin hacking to the inexperienced. Offset handles were available, the angle depending on whether the user was left- or right-handed. An expert wielded just a few deft strokes of the mortising axe to make a hole in a post when building post and rail fences. The broad axe was used mainly for trimming logs.

[Descriptive text and photos on this page and page 39 are also from the above book]

Dry stone walling

For the majority of Australians, the expression ‘dry stone walling’ would invoke an image of groups of convicts piling loose stones along the boundaries of pastoral properties—nothing could be further from the truth!

Dry stone walling is an ancient craft whereby fences and walls are constructed without the use of mortar or any other bonding material. The strength and stability of the structure is solely dependent on selection and placement of the stones and a combination of friction and gravity. The construction principles have also been widely used over the centuries for the erection of monuments, gateways and plinths for statues.

In the main there are two types of walls, retaining walls and freestanding walls [fences], both of which have been widely used in Australia..



Photo: JMS

In the 1800's, many skilled craftsmen were brought to this country from England and Scotland by wealthy pastoralists, to build walls, fences and ornamental gateways using the vast quantities of volcanic rocks scattered across their properties.

controlling the devastating rabbit scourge as illustrated by the following optimistic advertisement from the 1925 Lysaght brochure.



Result of Fencing with our Australian-made Rabbit-proof Netting.

Between 1884 and 1925, wire netting production grew from 700 miles to 25,000 miles; barbed wire production between the start of operations in 1907 to 1925 grew from 47 tons to 5,000 tons.

The 1925 brochure also states in part:

‘WIRE NETTING DEPARTMENT’

The wire delivered from the wire mills is divided into two parts, one going to the coiling shop to be made into “spirals” which form one of the wires woven into the netting, and the other direct to the weaving shop to form the other wire in the same machine.

The netting is made into various meshes from 1/2 inch to 4 inches, and in various widths, usually from 12 inches to 72 inches, and after leaving this shop in loosely wound rolls of 100 yards each, is taken to the galvanising shop, where it is passed through a bath of molten zinc, after being cleaned and suitably “fluxed.”

During this process it is carefully wound and, after examination, is ready for market.

Investment Value

Many financial benefits are gained from erecting fences that are suitable for your type of enterprise, and ensuring that they are maintained in good condition.

For one, fences form part of the tangible assets of a property. Well planned and constructed fencing indicates that the farm is well run and soundly managed, thus adding to the appeal of a property.

In the case of stud properties this aspect is extremely important, where the high prices asked for prime breeding stock mean that presentation is a major selling point.

If you are considering selling your property, good fences make the right impression. If fences aren't up to standard, a prospective purchaser will tend to be suspicious of the condition of other capital equipment or buildings.

The reverse is true of good fences. A buyer will feel more confident about your property if the fences have been constructed of the best materials and with thought as to layout and design.

While fences cost money, it should be remembered that money spent on fencing may be a deductible item when it comes to calculating your taxation. In this way, you can often recoup part of your outlay when your taxation is being assessed. Your accountant should be consulted regarding this and how benefits apply.

Farm Management

Without good fencing farm management becomes ineffective, and ineffective management equals loss of profit.

Poor fencing results in major setbacks to stock improvement and animal health programmes together with the risk of crop damage from

the use of the latest fencing materials and practices, in conjunction with electric fencing technology, will be successful in control of these pests.

**A golden rule for all fencing – never rush into building a fence!
Fences built on impulse still have to be lived with for a very long
time – a lifetime!**

WHAT ARE THE REASONS FOR BUILDING THE FENCE THAT MEETS MY NEEDS?

Planning is essential at this point and the time spent analysing the reasons for building your particular fence is time well spent.

Even a self constructed fence cost a great deal of money so you must be able to get full working value from it. If properly planned and constructed, it should last between 45 and 75 years, depending on climate and location.

When you consult others — suppliers, friends and neighbours — about fence design and fencing materials, you will hear differing opinions as to what type of fencing is best. By careful research and creation of a plan, you should be in a good position to evaluate the information you receive.

Study the following list, write down the items that relate to your situation and add other relevant items that may come to mind; then rewrite the list in the order of your priorities.

Stock management

- control the animal species on your property
- provide a lambing paddock and drift lambing (providing a sheltered night paddock for unlambed ewes)
- run an organised breeding program

Crop and stock protection

- control vertebrate pests (dingoes, kangaroos, wallabies, feral goats, foxes, rabbits, cats)
- control the spread of some parasites and transmittable diseases such as footrot
- farm security
- development and protection of shelter belts for stock

Human safety

- safety around the swimming pool
- safety around the grain silo
- safety around dams

Legal requirements

- boundary fence
- prevent stock from straying

Other reasons

- subdivision
- investment
- appearance

Your special reasons . . .

WHY DO REASONS MATTER?

Why is it so important to identify the reason? What difference will this make?

Livestock enterprise

The type of stock and the intensity of land use both influence the pressure on a fence.

Behaviours of the animals you want to keep in, or out, determines the type of fence that suits you best. A fence is really just a bluff for animals and they need to be educated to it when they are young.

If you know how your animals think, react and behave you can build a good fence to control them. Some livestock need stronger fences than others. Sometimes single wire electric fences do the job. In most cases you need much more than that.

If you change your livestock enterprise you may also need to change your fences. For example, fences for cattle need to be higher than fences for sheep because cattle can lean over a low fence and so put pressure on it. In general, the fence for cattle should be at least 115 to 120 cm. in height and with some breeds your fence may need to be even higher.

For example, the fence that contains British breeds may not contain tropical breeds, which are known to jump fences less than 150 cm. (five feet) in height. However, most cattle can jump fences if they are under stress or pressure. Deer require expensive fencing that should be about two metres high.

Higher stocking rates and smaller paddocks both increase the frequency with which animals are confronted by a fence.

Wool growing sheep are timid in their approach to a fence whereas cross-bred ewes are frequently aggressive in attempting to crawl through or under a fence. Cattle are more inclined to rub on fences and they are probably more intelligent in their attempts to get through.

WHAT TYPE OF FENCES ARE BEST FOR ME?

All farm fencing has two basic parts:

Posts — which support and space the infill panels or gates and give the fence resistance to overturning. Common materials in use are timber, steel and pre-stressed concrete.

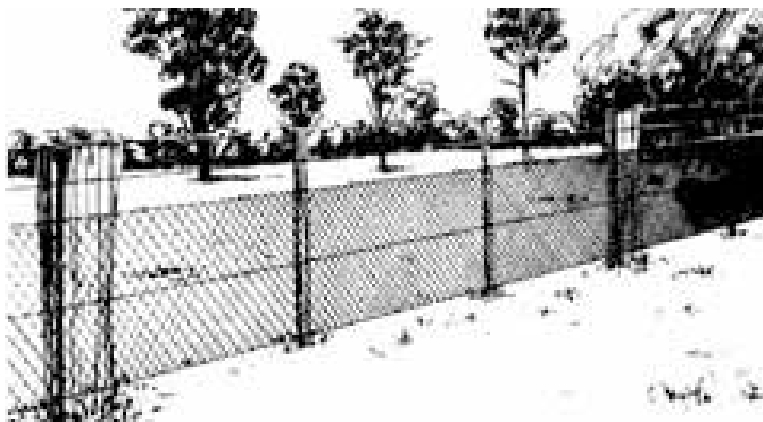
Infill panels — the majority of which are made of timber and/or wire. If the panel is capable of being easily moved aside, it is called a “gate”.

Apart from the occasional decorative “post and rail” fence, the use of timber rails is generally confined to specialised horse paddocks and stockyards, usually combined with timber or heavy tubular steel posts.

Wire, in its various forms, is the most common and economical fence panel material currently in use in Australia.

FENCE TYPES

Traditional fencing - *A traditional or conventional fence contains one or more of the following elements:*



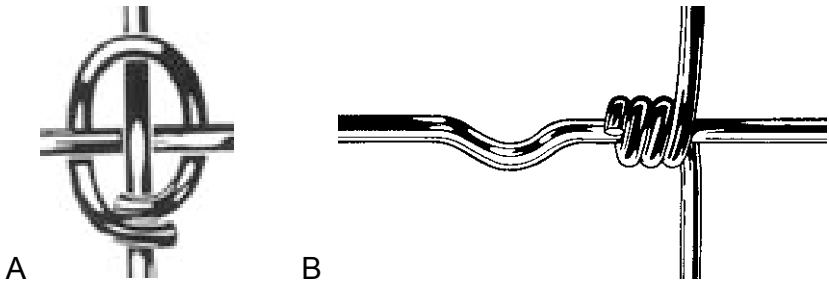
Conventional or Traditional Fencing

Prefabricated fencing

In addition to horizontal wires, any of the following fencing types can be used either in the conventional or suspension mode.

These include:

- A. Ring joint fencing
- B. Hinged joint fencing
- C. Wire netting
- D. Barb wire



A

B



C

D



Temporary fencing

A fast economical means of constructing a temporary enclosure or barrier is to combine ring joint prefabricated fencing with steel driven posts. As both these items can be used in a permanent structure at a later time, there is no waste of material.

FENCE DESIGNS AND MATERIALS

The following fence designs and materials used are to be taken as an indication only, local knowledge is always the key to the best result.

Conventional and Suspension Fencing

Local ground conditions — wet, dry, stable, unstable, construction standards, availability of particular materials etc — must be taken into account. Knowledge of type and breed of livestock and the degree of control required is also essential.

SHEEP ONLY

5/70/30 Ring Joint Station Fence

Low height fence suitable for enclosing Merino sheep on large properties.

Suspension Fencing

Posts at 20m centres, droppers at 6.6m centres

Five Wire Station Suspension Fence

Low cost, low maintenance fence for low density Merino sheep stocking.

Suspension Fencing

Posts at 20m centres, droppers at 6.6m centres

SHEEP AND LAMBS

6/70/30 Stocktite Fence

Ideal fence for lambing paddocks and for the control of British breeds or cross-bred sheep

Suspension Fencing

Posts at 20m centres, droppers at 6.6m centres

Conventional Fencing

Posts at 10m centres, droppers at 5m centres

Economy

Material costs are lower, erection takes a fraction of the time and maintenance is reduced to a minimum compared with any other type of yard enclosure.

Erecting Waratah® Cattle Strand can be a one-man job, requiring only the normal fencing equipment and tools available on any property.

Unlike orthodox yards, the larger the yard, the lower the cost when using Waratah® strand for yards. This is because fewer fittings per metre are required in yards with long sections.

Efficiency

Cattle work readily in these yards without fuss, thus reducing the risk of damage to carcasses and hides.

The yards give an uninterrupted view of stock, a factor of particular value in stud and fat stock sale yards. Unrestricted air movement provides maximum summer cooling for yarded stock and quick drying out within the enclosure, this is also an advantage in cattle sale yards. Waratah Cattle Strand is all steel, protected from rust and corrosion by heavy galvanising and cannot be attacked by termites or burnt by fire.

Versatility

Enlarging or modifying yards built with Waratah Strand is simple as existing yards can be extended irrespective of the original materials used. Any shape, size or height of yard can be erected and the minimum recommendation for a yard is seven lines of strand at 20 or 23cm (8 to 9") centres, giving a yard height of 160cm (5'3").

Whether used singularly or in combination, appropriately placed barbed wire can be an effective deterrent to both feral and human intrusion.

High Tensile Waratah Longlife™ barbed wires have a reverse twist pattern that delivers maximum strength against breakage and with 90mm barb spacings they provide greater pressure resistance than conventional 100mm spacings. Available in 1.57mm and 1.80mm diameters depending on your stock control requirements.

Longlife Iowa pattern barbed wire is produced from 2.50mm soft wire, which has a greater fire resistance than high tensile wires. The barbs are placed at 100mm intervals.

Iowa standard galvanised barbed wires are widely used in less harsh environments, because they do not carry the dual protective coatings of the Longlife barbed wires.

Extra care should be exercised when working with barbed wire; always wear gloves, protective clothing and eyewear.

VITICULTURE and HORTICULTURE

Growing grapes and other trellis dependant horticultural products necessitate a higher capital outlay than most other rural activities.



Waratah fence droppers are of particular value in suspension fences with widely spaced posts, where they create a visual barrier for both stock and stock handlers.

GATES AND GATEWAYS

With the possible exemption of “feature gates” at the homestead, the majority of farm gates currently in use are made up of a tubular steel frame, suitably braced, with horizontal bars or welded mesh as an infill.



They are manufactured and advertised throughout the country and a typical standard range would include :

Field Gates — with 34mm OD Galvanised Tubular Steel frame and welded mesh infill. 1150mm high and 900 to 4800mm wide in increments of 300mm.

Cattle Yard Gates — All galvanised tubular steel construction with 3 or more horizontal cross bars. 1350mm high and 900, 1800, 2400, 3000 and 3600mm wide.

Custom built gates to suit individual requirements are also readily available.

Repair and rebuilding of existing timber gates is well within the capabilities of the average D.I.Y. who should be guided by what works well – and survives – in their district.

As with many aspects of rural life, there is no simple formula as to “right” gates or “wrong” gates or as to whether your gates are in the “right” or “wrong” place, the important consideration is that you spend time deciding what is best to suit your individual farm plan.

If your property is already subdivided and you are only looking to replace existing fences and gates, you should still ask yourself the question as to whether the fences or gates are in the best configuration to meet your needs, which may not necessarily be the same as your predecessor.

Alternatively, you may be faced with hectares of unfenced wide open spaces but in both cases some serious pre-planning is in order.

An ideal starting point for your project would be “*Property planning – how to produce a physical property plan*”, a home study unit available from the CB Alexander Agricultural College, Tocal, Paterson, NSW .

Another of their home study units worth considering is “*Fencing*” which has an excellent chapter on gates and gateways.

SHOULD I BUILD MY OWN FENCES?

In addition to the types of fencing described under the suburban heading and which may be seen in the rural setting around homesteads, rural fences pose a different range of construction problems depending on many variables. Farm fences generally fall into these categories:

Timber posts throughout or with intermediate posts and/or droppers of timber, steel, or other manufactured materials.

PART THREE — Suburban Fences

HOW DO I FIND THE FENCE I NEED?

Having agreed upon your practical fencing needs, security, privacy etc., you should now look to satisfying your sense of style and appearance.



A new fence, especially on the street frontage of your property, should ideally complement your house and garden. An ornamental Victorian iron pillar and picket fence may not blend with a wide fronted, flat roofed, low profile house nor will a weathered post and rail construction match an elegant two story Victorian terrace.

So how do you start the search for your ideal fence?

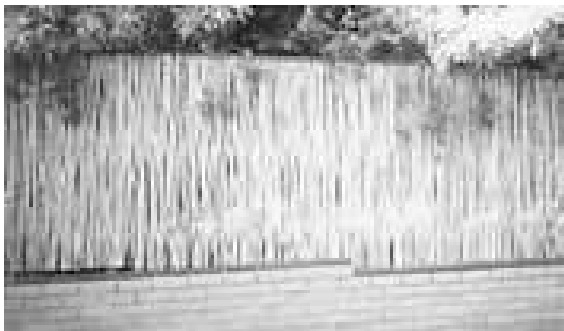
- Books and magazines at the local library or bookshop.
- Take a notebook and camera; walk or drive the streets; observe critically; make notes and take photos of the fences you feel would fit your house and garden.
- There are hundreds of examples to be seen in every suburb, from the sublime to the downright ugly.

WHAT MATERIALS SHOULD I USE?

All fences are made up of two basic parts - prime supports such as posts, pillars and other uprights and some form of infill panel between them.

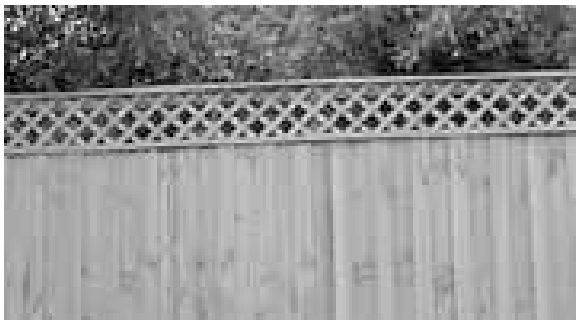
Supports may be timber, metal, brick, concrete, and stone; the infill panel can be open timber rails, palings, pickets, and boards; wire strands, wire mesh, metal pickets, corrugated sheeting; open and closed brickwork and stone.

Your choice can include any conceivable combination of the above as illustrated by the sample range of popular fencing styles set out in the following pages.



You should keep in mind that every section of your fence need not be identical, your needs may vary over the length of the fence.

Note however that in the case of a dividing fence, you will need to convince your neighbour that the variations are logical and viable.



Brick, masonry and stone have been in use for thousands of years and are still popular today, either as a homogenous structure or combined with other materials.

The group is also recognised by the Office of Fair Trading and the following information aims to inform you of your rights and obligations when using an *MFA* Member.

CONTRACT

We recommend that fencing work should not commence until a contract is signed by all parties and the specified deposit is paid. The parties should understand and be made aware of the terms and conditions of the contract.

a. The client, where the fencing contract is a door- to-door sale within the meaning of the Consumer Affairs Act 1972, has the right in accordance with the provisions of that Act to cancel the contract. The Contractor will provide a notice with the contract where this applies, explaining the Client's rights.

b. The Contractor has the right to amend his quotation if not accepted within 30 days.

c. It is not practicable for any Contractor to give a commencement date for any contract. A fencing contractor may be able to give an approximate date of commencement. This will vary depending on weather conditions, availability of manpower, materials etc.

d. Works that require a Council permit and exceed \$5,000 may require the contractor to be registered with the Builders Practitioners Board

e. All MFA members use a standard MFA approved contract. All references in this brochure to “the contract” refers to the MFA standard contract.

CONTRACT VARIATIONS

The contract may be varied by additional work or by omissions from the works. All variations should be in writing and signed by all parties to the contract, and will include the costs of the variation, if any. There is no reduction in cost for low fences or low panels of fencing.

With boxed fences, the spacing between base palings shall be such that the cover paling will provide 25mm of cover on each side.

For example, if using 100mm wide cover palings, the base palings would be spaced 50mm apart. For ease of erection use a piece of timber 50mm wide as a gauge and check regularly that the palings are vertical.

Finishing touches

The palings should now be cut off in a straight line no more than 200mm above the top rail in each bay. For the sake of appearance keep the same straight line over as many bays as possible — if the ground contours permit. A hand held power saw running against a suitable guide is the ideal tool for this job.

A piece of rectangular straight timber, such as a batten about 50 x 25mm, nailed or clamped to the fence makes an excellent saw guide.

To add interest to the top of the fence, some owners prefer the base and cover palings to be of different heights, the variation being in the order of 40 - 80 mm. This involves extra cutting time but is quite simple to do at the appropriate time.

After fixing all the base palings, cut the tops to the desired heights using the same techniques as described above. Then fix all of the cover palings and repeat the process. You will appreciate that the cover palings will always have to be the higher of the two using this simple method.

Cappings

The capping [Fig. 7 page 132] will increase the service life of palings and top rails as well as enhance the appearance of the fence. The use of a capping requires certain structural changes.

Top rails must be fixed flush with the post which must be trimmed horizontally, although the portion of the post top not covered by the capping

CORRAL & OTHER HORIZONTAL BOARD FENCES

Horizontal Single Sided Corral

The simplest form of corral fence is the single spaced with 150 x 25mm boards spaced 25mm apart. No rails are required and the bottom board acts as the plinth. Boards should be long enough to cover two bays and fixed with two galvanised flat head nails per board.

Joins should be planned so that two adjacent boards do not join at the same post. To minimise warping of the boards, a dropper say 75 x 38mm on edge can be fitted vertically midway between the posts. The dropper extends from the top of the top board to the bottom of the lowest. Boards are fixed to the dropper using two nails as above.

Boards can be rough sawn or dressed all round and surface protection using paint or stain is recommended. Capping is not essential and is a matter of individual choice.

A variation of the single corral fence is to offset the boards by alternately fixing to the back and front of adjacent posts. In order that the boards lie flat against the face of the post, the posts should be angled slightly off the fence line.

Another variation is to weave the boards between the posts using boards at least two bays long, with each adjacent board level being fixed to alternate sides of the post.

Double Sided Corral

This style has the benefit of allowing a free flow of air plus some sun penetration while still maintaining visual privacy.

The front boards — usually 150 x 25mm — are fixed to the 125 x 75mm posts and are spaced 100mm apart. The back boards are fixed to evenly

PICKET & SLAT FENCES

Since early settlement in Australia, the picket fence has been popular both in the utilitarian and decorative role. In recent years the picket fence has assumed the more decorative role, generally as a suburban front fence.

The basic elements are the same as for a paling fence - posts, rails and vertical infill components; the main differences being that these component parts are also selected for appearance so the timber is usually dressed all round and free of blemishes.

There is an infinite range of styles available but picket fences can generally be grouped as

Straight top, rise and fall, scalloped and staggered with pickets either in an unbroken line or in bays set between projecting posts.

Unlike paling fences which are mostly left in their natural state, picket fences are surface protected and decorated with either a stained or painted finish. The main design variations from the paling fence construction are:-

Posts

Timber dressed 'all round' and free from faults. For fences up to 1200mm high, square posts 100 x 100mm are in common use. For higher fences, posts can be 125 x 75mm or 125 x 125mm with corner posts and gate posts always in the larger size, 125 x 125mm.



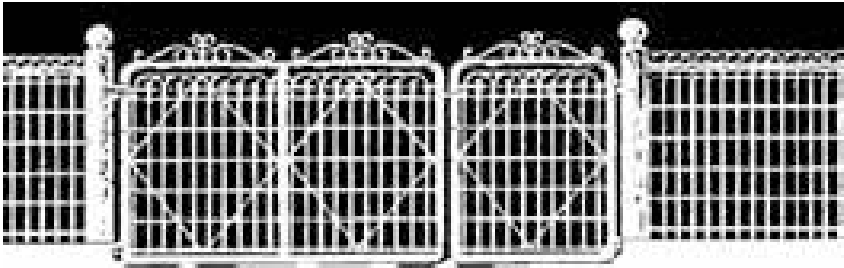
CAPITALS

HERITAGE WOVEN WIRE GATES

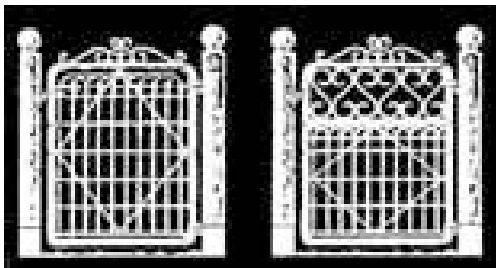
Emu manufacture a wide range of gates to suit homes of all architectural periods. All scroll work and welding are stainless steel with both the 27mm OD tube frames and the woven wire being galvanised.

These gates are powder coated in a wide range of attractive colours: Silver, Primrose, Claret, Heritage Green, White Birch, Mist Green, White and Black. Emu gates can also be supplied in the galvanised finish.

Standard heights are 1200mm, 1050mm and 950mm both as pedestrian gates [1 metre opening] and driveway combinations [3 metre openings].



Standard Driveway Opening 3 metres



Standard Pedestrian Opening 1 metre

Emu manufacture a wide range of ornamental gates to suit homes of all architectural periods. All scroll work is stainless steel with frames and woven wire being galvanised.

ENTRANCE GATES

Like fences, gates come in a multiplicity of styles, sizes and materials and are used for just as many purposes. To suit your purpose a gate may provide security — or a sense of security; it may be imposing, impressive, opulent, basic, decorative, boastful, unique or simply a moveable hole in your fence.

With very few exceptions a gate comes down to three basic parts — a braced frame to support some form of cladding, two or more devices to attach the frame to a fence post so that the gate can pivot or hinge, and a latching or locking device to keep the gate in a closed position. Every gate is a variation on that concept.

Matching or contrasting gates in suitable sizes can be supplied by the manufacturer if you are erecting your own metal fence — tubular steel, weldmesh, solid panel, woven wire etc. — so there is little scope for your D.I.Y. skills. Square tubular steel frames can be purchased to which you can fix your chosen timber cladding — palings, pickets, boards etc..



Left: A timber framed gate showing the single diagonal brace in the lower panel. Right: A 'gallows' gate with exposed double diagonal braces in the lower panel

PART FOUR — Utility Fences

POOL FENCES

Why is pool fencing so necessary?

Drowning is the single most common cause of death for children aged one to five years. Over 80% of those drownings occur in swimming pools and spas on private property.



Timber Pickets - High Visibility

What pool fences are available?

Pool fences may be constructed of metal or timber pickets, wire mesh or other materials capable of providing an effective barrier to children up to and including the age of five years.

SECURITY FENCES

“Security” is defined as the state of being free from fear, danger, damage etc., which is an impossible state in our current suburban environment; our practical aim therefore is to minimise the risk of being affected by such threats.

Your first priority is to decide on the degree of security required to protect you from a specific range of threats — both actual and perceived - that are relevant to your particular situation.

Do you feel you need protection from an external threat — either animal or human — that may enter your property or do you wish to restrict your family’s movements to protect them against outside dangers — creeks, dams, busy roadways, animals, people etc..

After considering all possibilities, you can then arrive at a broad specification of the type of security fence you need; its height, strength, access points and so on.

You must then consider the ascetics of the situation; a 2.4 metre high chainwire fence may give you great security but it will not do much for the overall look of the property. Compromise is the most practical option — see photographs on pages 174 & 176.

An extensive range of types and designs is readily available and can be best accessed through the Yellow Pages under Fencing Contractors, Fencing Materials, Pool Enclosures and Security Fencing.

Solid security fences — either brick or timber — may give you a feeling of protection from intruders entering from the street frontage but you should be aware that solid fences also give the intruder immunity from observation from the street and your neighbours.

WHAT TIMBERS CAN I USE?

For many years timber has been the traditional fencing material for both rural and suburban fences as illustrated by the following extract from the well known reference book, "Wood in Australia" written by Keith R. Bootle and published by McGraw Hill Australia, 1983. [pages 383 - 385]

Ever since the early days of white settlement timber has been a major fencing material, both for rural and domestic enclosures. In those earlier times, when large areas were cleared for pastoral and agricultural purposes, an abundance of very durable species was available at low cost and fences were often very substantial structures.

More recently there has been much greater use of species of lesser natural durability which can be given some form of preservative treatment, or which can be enclosed in soil to which has been added materials such as creosote and chlorinated hydrocarbons to deter fungal and termite invasion of the wood.

Farm fencing

Labour now represents a large percentage of fencing costs so the design needs to be simple, involving the minimum of components, and the material as light as possible for easy handling. The traditional heavy fence of closely and evenly spaced posts and large strainers has given way to the use of high tensile wire with widely spaced supports which are not necessarily spaced evenly.

There is also a trend towards the use of electrically charged wires, where the strength of the supports is of very little importance in providing the desired restraint of animals. Posts preservative treated with creosote or copper-chrome-arsenic salts are acceptable for use with electric current

The use of the thinner gauge high tensile wire has the advantage of greater elasticity without reduction in breaking strain but accurate measurement of wire tension at the time of installation is essential to successful use.

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GLOSSARY OF TERMS

Timber; Fencing; Walling; Electrical

Amps	or Amperes. A measure of current. One amp flows if one volt is applied across one Ohm of resistance. Volts divided by Ohms = amps.
Annealed Wire	A wire that has been heat-treated to improve its softness or workability.
Batter	The taper [inward] of a wall from base to top
Belly Wire	Plain wire used to support netting in the middle.
Board	1. A piece of sawn, hewn, or dressed timber of greater width than thickness. Usually 10mm to 40mm thick and 75mm or more wide.

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