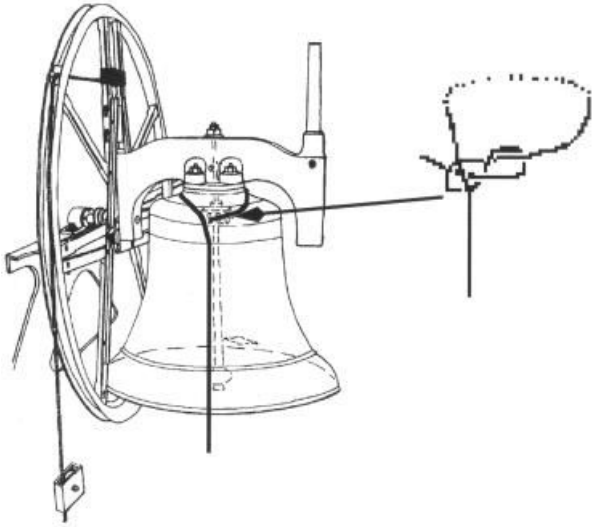
Silencing a bell simply with a piece of rope

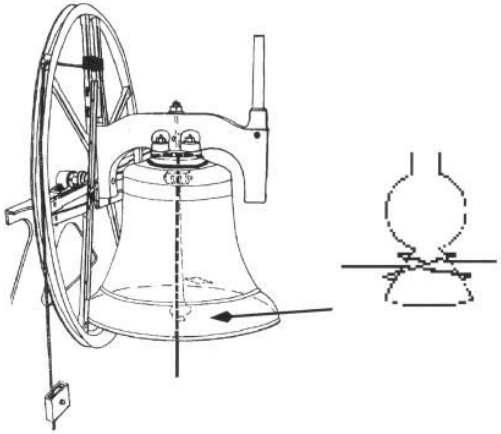
You need about 14 feet / 4½ metres of bellrope. It will last better if the ends are whipped or backspliced.

MAKE SURE THE BELLS ARE DOWN FIRST



Position yourself comfortably on one side of the bell. Pass one end of the rope around the top of the bell under the headstock making a loop.

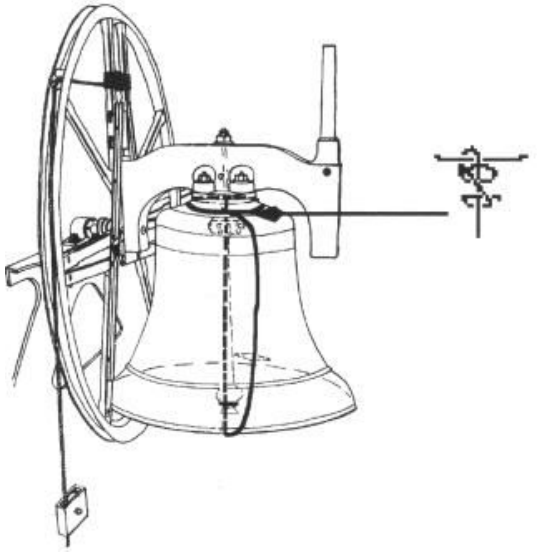
Tie a packer's knot where shown. And pull reasonably tight.



Twist the loop round so that the long end of the rope hangs down on the far side of the bell.

Reach under the bell and pull the loose end of rope fairly taut against the middle of the far side of the lip of the bell. Then tie a clove hitch around the narrow part of the flight as shown. With practice (at home?) you can make the knot and then slip it over the flight.

Adjust if necessary so that the clapper is about in the middle of the bell and pull tight.



Bring the loose end of the rope to your side of the bell and pass the end through the loop that you made at the beginning. Pull the rope towards you very tightly. Secure it with two half hitches as shown.

Tuck in any loose rope securely.

A quick and simple way to silence a bell (do not do this with bell up)

An old bike inner tube (bike shops will usually give you a few) with two lengths of redundant bellrope is all you need. Two knots in the tube will help stop it shifting when in use. Make the loops on the rope first and then hook the inner tube over the headstock. To calculate the amount of rope wanted put the loops round the flight of the clapper and then tie the other ends of the rope to the tube, adjusting the length so that you get a reasonably secure fit, and the clapper is central. It doesn't need to be all that tight, since friction plays a part in keeping the thing in place.

The silencer in position. Make sure that it's parallel to the wheel and fixed centrally, or it may slip sideways. To remove the silencer simply slip the two "nooses" off the clapper and it's ready for next time. You don't need beautiful knots (see photo on left!) – but check them each time you use the gadget, just in case. The kit in these photos has been in use for over three years and the inner tubes are still all intact, but again it's worth keeping an eye on them.

Silencing bells for instruction

Finding the right tyre in the first place is probably the most difficult part of the process. A car tyre has too large a cross-section and there are steel wires running through the tread, so don't even think about that. You need an old motorbike tyre, not one with the thick chunky tread of a trial bike, but an ordinary old motorbike tyre. Even a bike tyre has wire bracing around the rim, though, but read on to see how we deal with that

I retain one of my old style silencers as a pattern, to show the people in the bike shop the cross-section I'm looking for. They're quite happy to give me an old tyre as it saves them the cost of disposal, and they're intrigued when I try to explain what it's for. An average cross-section diameter of about 3 or 3½ inches is suitable for most bells, and the beauty of it is that the measurements aren't critical. One tyre can produce two complete octave sets.

Fig 1 shows what's needed, apart from a piece of chalk, which I forgot, and my trusty old Black & Decker Workmate, which wouldn't fit in the picture. On the left is the safety gear: mask, goggles and ear defenders. The only tools required are a mini-disk angle grinder and a Stanley knife with a new blade. Some might feel happier to include a tape measure even though it isn't necessary, but the jar of water certainly is!

Fig 2 shows how useful the old Workmate is for this job. Open it to its full extent, force in the tyre, and tighten it up so the two rims are squeezed together. With the tyre trapped like this it's a piece of cake to slice through the two rims at the same time with the angle grinder, but for goodness sake wear goggles and a mask. You can expect a shower of sparks and a cloud of pulverised rubber. I've used chalk for clarity in the photographs to mark the position of the cuts for one silencer, about one clapper ball diameter apart.

In Fig 3 you can see the two cuts through the wire reinforcing of each rim. If you were making a complete set, you would mark up all the cuts before starting to use the grinder; so all this noisy filthy work can be completed in one go. Having removed the tyre from the workmate you can now cut around the marks with the Stanley knife, dipping the blade frequently in the water. Why? Try cutting with a dry knife and you'll find out!

Fig 4 shows one section removed; carry on cutting off more sections if you're making a set.

This is the cunning part. Spread open the tyre section and mark an "H", as shown in fig 5. Make the three cuts of the "H" right through the tread, taking care not to sever your thumb at the same time! That completes the "silencer".

In fig 6 the highly technical "fitting rig" shows how the two flaps of the "H" will open up to grip the flight of the clapper.

With the tyre as shown in fig 7a, the clapper strikes the bell normally.

Twiddle it round through 90 degrees as in fig 7b, and the bell doesn't speak.

Once fitted, it isn't necessary for the tyres to be removed, not even to fit the strap and lace type leather muffles. The straps go under the "H" flaps. I have no experience myself of fitting the Velcro-type muffles over a tyre, but I'm told it can be done quite easily.

It took me 25 minutes to make the illustrated example, but that's including the time to set up and take the photographs. Given the correct tools, a set of eight can be made in under an hour and the capital effort is well worth it. Apart from the convenience of enabling someone to silence an octave in two minutes, its big advantage is that it allows the clappers to swing freely, giving a normal feel to the bells. I don't think any other system does that

Peter Dale