

# Bobsledding Logs

by Carl Brennan Russell  
Randolph, VT

In 1986 I bought my first horse and a single bobsled from a man who logged with horses throughout his life. He showed me the basics of bobsledding, and since then I have applied this technology to many different situations, using horses or oxen. I feel that the bobsled is one of the best tools that can be used for logging. Bobsleds are low cost, long lasting, versatile, maneuverable pieces of equipment that truly augment the inherent efficiency of working animals. I refer to my sled as "The Weapon" because of its effectiveness in use.

Knowing how to effectively use a bobsled has aided me in getting much more from my teams. I want to share this information to benefit other teamsters in a similar way. However, although it is not rocket science, some of this process is difficult to learn quickly. Remembering the look on Walt's face when I asked for the umpteenth time, "Now, how do you...?", I have tried to describe these techniques in an informative way. Not as an excuse, but as encouragement, I suggest that laying hands on these chains, and tools, will provide the best working knowledge.

Before I get the sled in front of the horse, let me dispense with a couple of factors that are fundamental to logging with animals. Chain saw safety, felling, sawlog processing, forest cultivation, and harvesting layout are requirements for any logging operation. Also, teamsters should be experienced with their team, and confident of the safe application of animal power to many situations.

One of the key elements of success in logging is to gain advantage for the animals. Using a bobsled provides excellent advantage by getting loads off of the ground. A bobsled can be used during all seasons, uphill or downhill. Going downhill in winter offers the greatest advantage. Bobsleds also provide advantage to the teamster by securing the load from rolling, or sliding, and by reducing impact on the forest soils.

Although there are pictures depicting teams with huge sled loads of logs, that is not necessarily a day-to-day approach. "Go light, and go often. It's the number of hitches to the landing, not the size of the hitch, that matters." With a bobsled, a load normally ground-skidded can be doubled, or tripled, and on snow or ice, large loads can be hauled more easily. The size of the load will be determined in light of conditions on the job.

A bobsled has two runners and a single bunk. I have found that a load on a swing-bunk shifts and swivels too easily on hilly terrain. The method I was taught works with a stationary bunk, and creates a very secure load that will pivot at the center. Runners can be shod with wood or steel. A trick for saving metal shoes is to weld on a second shoe to take the wear, which can easily be replaced when worn. Most of the sled should be made of hardwood. The pole should be sturdy, such as a tapered hardwood 2x8, and be anchored to the roll with an "A" frame. The hook ought to wrap completely around the roll. Singletrees and eveners should be steel, or good hardwood.

On the bobsled there should be a way to carry a peavey, and a chain binder. Two 15' -20' chains are used for binding logs to the bunk, one for each side of center. These two chains have slip hooks on one end, and large grab hooks on the other. A third 15' -20' chain is used with the binder to tie the entire load together. I carry the



"The weapon" armed and ready.



Large white pine log on sled with bridle chain in use, showing finger and ring clasp.

bunk chains on the sled in such a way that they can be used without a lot of handling. From in front, the slip hook is passed below, up behind, then placed at the front edge on top of the bunk. A loop is formed by placing the chain into the slip hook, and tightened by catching the first full link with the grab hook. The loose chain is coiled around the grab hook, to hang neatly against the front of the bunk.

When logging with a bobsled, the logs have to be loaded on top of the bunk which is about 18" off of the ground. I use a peavey and skids to roll logs on. From discussion with other loggers, the peavey seems to represent a lot of back work. This work requires as much finesse as brute strength. Logs balance, pivot, slide, and roll. All of these factors come into play when using a peavey. Creative determination will provide each user with the best understanding of this invaluable tool.

A peavey has a hardwood handle, a swinging sharpened hook, and a spear shaped point. A slight crook at the very end of the point will provide extra purchase when using the tool to pry. The crook should bend to one side of the plane in which the hook swings, as the user will

turn the hook to the side to drive the peavey into the slot between, or under logs. Personal preference will differ, but the direction of the turn will become second nature.

Skids are poles, or small dimension cants, used to roll logs on. They can be made to fit the needs on each job. Nails or screws, can be driven into the skids so that logs are less likely to slip. Also, the loose end of a load chain can be wrapped around a slippery log, and by putting the peavey hook into a link, the log can be rolled up the skids with the shortening chain. Longer skids will lessen the angle of incline.

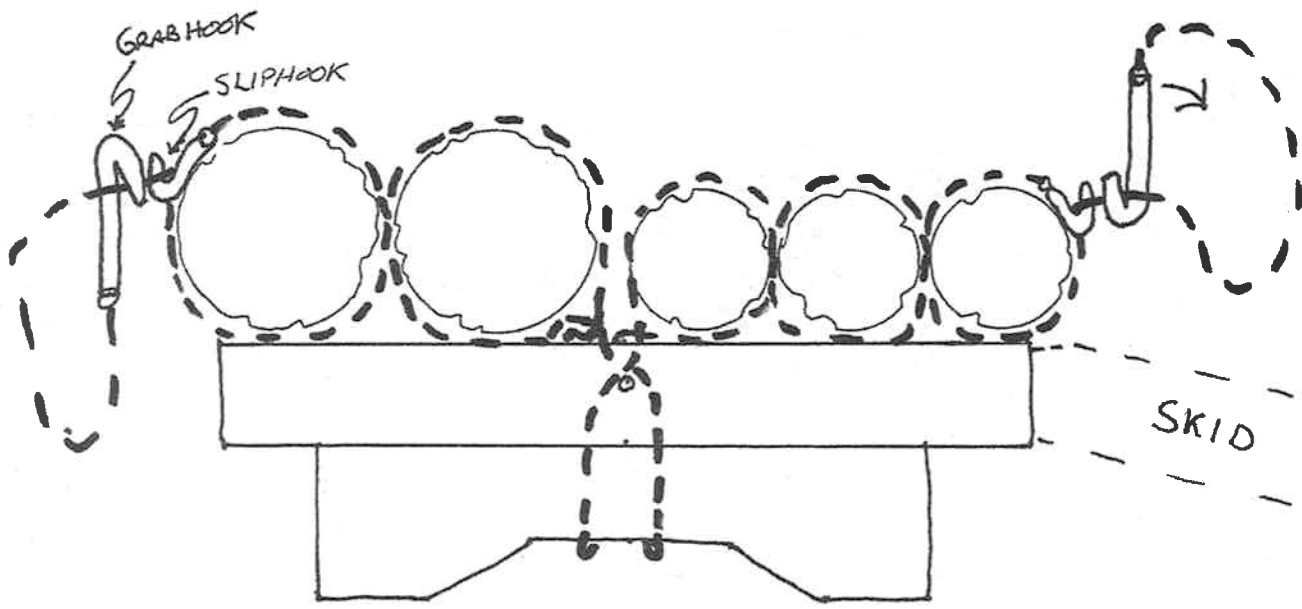
Depending on trail location, and the lay of the land, I try to find a hump, or sloping bank, to give some elevated point to load from. Also, a simple header can be built at railside. I try to locate my loading site in a place where I can use it for as much of the work area as possible. It is important to have plenty of room to twitch in logs to be loaded. If very large trees lay right, the sled can be brought to the logs. Animals can be used to roll on large, or long logs.

As logs are rolled onto the bunk, they should be prevented from rolling off the other side. Parking the sled beside a tree is an excellent way to prevent this. If the bunk has stake pockets, a temporary stake can be employed. It is best to stop heavy logs before they reach the end of the bunk, as they can tip the sled over. Only one skid is required to load the first tier of logs onto the bunk. Butt logs are easiest to load if they are on the first tier. The greatest advantage is gained if logs are loaded with the large ends over the bunk, extending just to the roll. The number of logs laid across the bunk will vary depending on diameter, and the determination of the teamster.

To create a pivoting load, each of the bunk chains are wrapped around the center of the bunk. From in front, the grab hook is passed over the bunk, where the chain is twisted over itself at the rear edge of the bunk. The direction of the twist is determined by which way the chains will be woven between logs. Using both ends, a chain is woven around the logs, ending with the slip hook



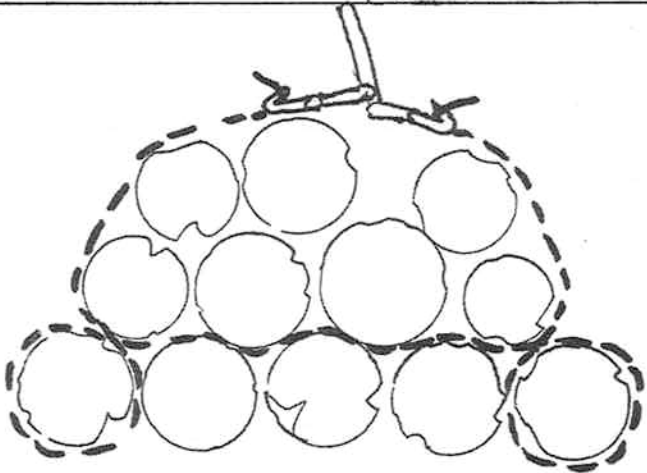
Rob "The Wonder Horse" with single horse bobsled.



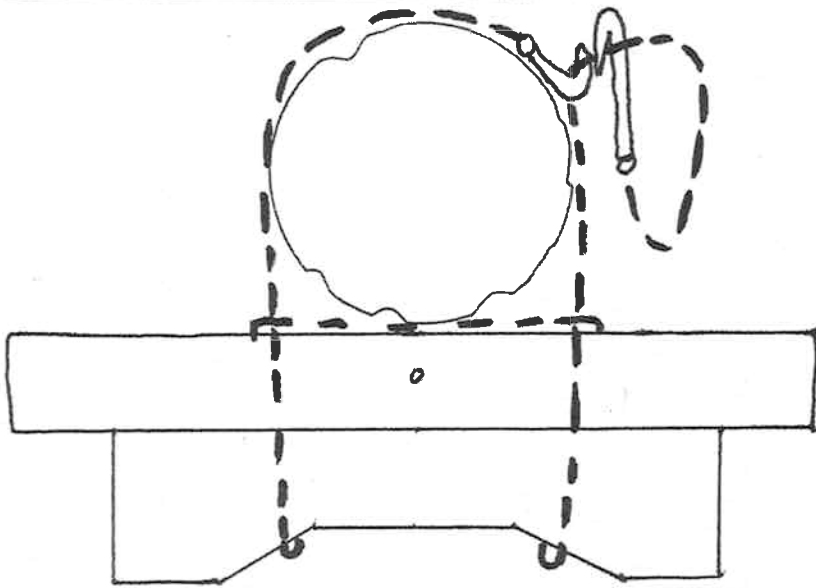
VIEW FROM REAR

("UNDER & OVER FOR TWO")

("OVER, UNDER, AND OVER FOR THREE")



LOAD CHAIN AND BINDER



CHAINING SINGLE LOG WITH ONE CHAIN

above, and the grab hook below the outermost log. The rule of thumb for the slip hook is, "under and over for two", or, "over, under, and over for three", and so on. The slip hook should hang over the outer log, but not far enough to dangle. The extra chain follows the grab hook, and is placed into the slip hook. By hitching the first link

though the slip hook, and using the grab hook as a handle, the slack is pried out. When it is tight, I hitch the grab hook onto the chain as closely as possible to the slip hook, and coil the slack around it. When the sled is pulled forward, the chains will tighten. If the chains are too slack the logs may shift. I check the load after it has been

hauled a short distance.

I usually position the logs on the opposite side from where I'm loading before I weave the chain around them. When I load the side nearest my work, I position that chain and estimate the length needed for the slip hook to reach properly. I weave the chain over and under each of the logs as they are loaded.

Whether the load is two logs, a deck of six, or a load of fifteen, it should be bound tightly at the mid-point in length. When the going is good, logs will be loaded on top of those in place on the bunk. The third chain should be put in place around the first deck of logs before more logs are loaded. I lay the load chain across the first deck and pry back the outer log on each side. Then I pass the ends of the chain around, and up between the outer log and its neighbor. Using two skids, logs can be loaded to correspond with the teamsters' initiative. The loose ends of the chain encompass the rest of the load, and are tightened with the binder. I also coil the ends of this chain, because loose ends that get pinched between shifted logs can cause difficulty.

During winter I use bridle chains to hold back a heavy load on ice, or snow. They have very large links, and are designed to create drag beneath the runners. One end of the chain is attached to the roll, or hooked over the top of a runner. When they are not employed they drag freely over the ground. They can be used on one runner, or both. Sometimes turning on an icy road is aided by using just one chain. When they are not needed they must be easy to release.

A bridle chain is employed by laying it in front of the runner, and looping around to the end that is attached. The loose end is held in place with a steel finger which is folded back, where a ring is slipped over it. When the sled is pulled forward the loop of chain moves under the runner, and creates drag. When the chain is no longer needed, the ring is tapped off of the finger, releasing the loose end. As the sled moves ahead the chain will be pulled from under the runner, and will return to dangling loose.

I carry my peavey on the loaded sled by driving the point into one of the top logs. Peaveys can be left at the landing, and in the woods, but a peavey may be needed during the trip out. One that is just laid on top of a load may work its way down between shifting logs, which is not a good situation. When I get to the landing, I release the chain binder first. The grab hooks can be released by driving them off with a peavey. Then, I pick the load apart, a log or two at a time.

After I have a deck of logs on the landing, I pull the next sled load in tight to the outer log. Any logs rolled off from the upper part of the load will roll directly onto the logs in place. In most cases the bunk is high enough to afford good advantage for unloading the remaining logs as well. A short skid can be helpful for elevating the ends of the logs that ride on the ground. Logs can be piled higher by using two long skids. Once the bobsled is empty, I pick up tools and chains, and secure them back on the sled. After a little practice, standing on the bunk for the return trip is an easy way to travel.

In today's economy, time is money, and the time and energy required to use a bobsled may seem daunting to many people. With practice and



Using cattle to roll on 50' ridge pole, note: butt extends forward over the pole



Unloading 34' cabin logs.



50' log cabin ridge pole, 420 BF.

determination, I have found bobsledding logs to be a valuable investment of time and energy. Even though most often I work alone, extra hands make some of the work easier. An example of a group effort might include a teamster driving the sled and loading, another twitching, loading and swamping, along with a chopper felling and swamping trails.

Since I did not choose to log with animals so that I could compete on the Fortune 500, I will end this discussion before it gets into time studies and profit margins. As I conclude, please allow me to illustrate one reason why I like to bob logs;

It's 4:30, quarter to five, on a crisp mid-winter afternoon. The sun's gone behind the hill, and you can see dusk forming in the shadows. Dry powder snow covers the ground. The temperature never got above fifteen degrees today, but working in the sun you warmed up easily. Now a slight chill seeps into the dampness of sweat on your shoulders.

Your team is ready, hitched in front of a nice jag of fine straight logs. Put your coat back on, and check for mislaid tools. Smoke your smoke, chew your chew, or down the last cup of tea, and climb up on that load. Gather lines, brace your feet, and calmly call on your animals.

As the load lurches forward, puffs of steamy breath float from the horses' nostrils. You can feel the weight of the load through your legs, as the bobsled travels over humps, and through hollows. The horses' hooves thump and squeak, as chips of ice fly from sharpened caulks. From below the load comes the jingle of bridle chains, and as the logs rasp over the frozen snow they put forth a whine, like from a bow on a fiddle.

Feel that?... That's the spirit in your soul dancing the bobsledder's jig.

"Now we're loggin'."

### ROB THE WONDER HORSE

by Carl Brennan Russell

Now go ahead, be on your way,  
I'll think about you every day.  
Your eyes so bright, your ears so keen,  
go find the field, so lush and green,  
and romp and roll, and buck and run,  
have yourself a lot of fun.  
I hope sometime, to go that way,  
and crest that hill, to watch you play.

So many paths you helped me find,  
both in the woods and in my mind.  
We turned the soil, and I learned to grow,  
and bring to life the things I'd sow,  
the best of which it really seems,  
were hidden deep within my dreams.  
My time with you I'll never trade,  
you made a mark that will not fade.

Now go ahead, get on your way,  
you will be with me every day.  
From ridge to ridge, along the brook,  
I see you everywhere I look.  
Like scratches on a cavern wall,  
our secrets are hidden in the scrawl,  
of skid trail, furrows, and manure.  
The tests of time, they will endure.

Whatever the job, you had your pace,  
and I learned that this was not a race,  
but when I asked you did your best,  
Your done with work, now take a rest.

It's hard for me, I feel so strong,  
the need to bring you on along,  
to see things through to the end,  
you truly were my greatest friend.

Go on now Robbie, get on your way,  
I'll meet up with you again, someday.