If you are modeling a railroad in the period prior to 1920, you will need a supply of horse-drawn vehicles. This is the second of several to be offered. The one-horse shay was the classic light transport (two or fewer passengers) of its day. The prototype for this shay was built of native woods and finished black with red wheels. It is on display at the Boothbay Railway Museum. The wheels for this vehicle are made of laser-cut ply and are available as a separate item from Northeast Narrow Gauge (www.nemodel.com).

Construction

Begin construction by cutting out the “print-wood” parts. The print-wood pattern can be copied and glued to firm balsa or ply. Balsa will be the easiest material to cut.

Begin by assembling the seat. Sand the edges smooth and add the .04"-diameter wire handrails. Give the seat at least two coats of spray lacquer. Make the seat cushions from balsa. Add the pins and seal with clear lacquer. Paint the cushions black. Do not glue the cushions in place until the body has been painted. Now make the floor and mud guard. Seal this with clear lacquer before painting. When dry, attach the seat.

Now make the frame. Since the frame is made of dissimilar materials, use CA cement for assembly. Start with a 1/8"-square x 1 1/16" piece of pine. Drill 1/16"-diameter holes where needed. Glue the 1/32" ply semicircle piece in place. Add the tube and the rear axle, followed by the flat wire springs and step. The round steps can be made from small cardstock discs. When this has fully dried, paint the frame black.

Next, make the front axle and the shafts. Since this assembly is made of dissimilar materials, use CA cement for assembly. The assembly should also be painted black. When dry, attach the front axle to the frame with a pin through the ply semi-discs.

Assemble the wheels. Seal and paint these red. Wheels can be fitted on the axles, and the small eyelet that holds them in can be glued to the ends of the axles.

While the one-horse shay was a small vehicle, a Morgan horse was often used to pull it. One possibility is a Breyer “Paddock Pal” Morgan, available from toy stores, tack shops, or online.

* * *

This sheet is a supplement to the December 2005 issue of Garden Railways magazine. While supplies last, extra copies of these drawings can be had by sending $1.50 per set ($2.00 foreign) to: Sidestreet Bannerworks, PO Box 460222, Denver CO 80246 USA. A complete list of available plans can be found at www.sidestreet.info, or send a stamped, self-addressed envelope to the above address.

Laser-cut wheels for this project are available from Northeast Narrow Gauge for $6 + $2.50 shipping for a set of four. If you would like a complete one-horse shay kit (including wheels, less horse), it is available for $25 + $6 s&h. Order from Northeast Narrow Gauge, PO Box 191, Wiscasset ME 04578. Web site: www.nemodel.com

© 2005 by Garden Railways and Northeast Narrow Gauge. These drawings may be photocopied by individual modelers for their own personal use. Copying for any commercial use or for distribution is prohibited without written consent from the publisher.
Are you working in a different scale?

- If you are working in 1:32 scale, reduce these drawings to 63%.
- If you are working in 1:25 scale, reduce these drawings to 70%.
- If you are working in 1:24 scale, reduce these drawings to 88%.
- If you are working in 1:22.5 scale, reduce these drawings to 90%.
- If you are working in 16mm scale, enlarge these drawings to 107%.
- If you are working in 1:13.7 (7⁄8") scale, enlarge these drawings to 148%.

---

**FRAME**

- Top view
- Side view
- Step view

**FRONT AXLE & SHAFTS**

- Top view
- Side view

---

©2005 Northeast Narrow Gauge
Cut from 1/32" ply
If you are modeling a railroad in the period prior to 1920, you will need a supply of hooles. This is the second of several to be offered.

The one-horse shay was the classic light transport (two or fewer passengers) of its time. This shay was built of native woods and finished black with red wheels. It is on display at the Wiscasset Railway Museum. The wheels for this vehicle are made of laser-cut ply and are available from Northeast Narrow Gauge (www.nemodel.com).

**Construction**

Begin construction by cutting out the “print wood” parts. The print-wood pattern is glued to firm balsa or ply. Balsa will be the easiest material to cut.

Begin by assembling the seat. Sand the edges smooth and add the .04"-diameter wire seat at least two coats of spray lacquer. Make the seat cushions from balsa. Add the pins and lacquer. Paint the cushions black. Do not glue the cushions in place until the body has dried. When dry, attach the floor and mud guard. Seal this with clear lacquer before painting. When dry, attach the frame.

Now make the frame. Since the frame is made of dissimilar materials, use CA cement for assembly. The assembly should also be painted black. When dry, attach the frame with a pin through the ply semi-discs.

Assemble the wheels. Seal and paint these red. Wheels can be fitted on the axles, a task that holds them in place until the ends of the axles.

While the one-horse shay was a small vehicle, a Morgan horse was often used to pull it. A Breyer “Paddock Pal” Morgan, available from toy stores, tack shops, or online.

* * *

This sheet is a supplement to the December 2005 issue of *Garden Railways* magazine. Extra copies of these drawings can be had by sending $1.50 per set ($2.00 foreign) to Garden Railways, PO Box 460222, Denver CO 80246 USA. A complete list of available plans can be found at sidestreet.info, or send a stamped, self-addressed envelope to the above address.

Laser-cut wheels for this project are available from Northeast Narrow Gauge for $6 for a set of four. If you would like a complete one-horse shay kit (including wheels, less the horse) for $25 + $6 s&h. Order from Northeast Narrow Gauge, PO Box 191, Wiscasset ME 04578. www.nemodel.com

© 2005 by *Garden Railways* and Northeast Narrow Gauge. These drawings may be used by individual modelers for their own personal use. Copying for any commercial use or for distribution without written consent from the publisher.
Plan set #74

you will need a supply of horse-drawn vehi-
or fewer passengers) of its day. The prototype
ith red wheels. It is on display at the Boothbay
f laser-cut ply and are available as a separate

ts. The print-wood pattern can be copied and l
to cut.
1 add the .04"-diameter wire handrails. Give the
ns from balsa. Add the pins and seal with clear
in place until the body has been painted. Now
fore painting. When dry, attach the seat.
milar materials, use CA cement for assembly.
eter holes where needed. Glue the 1/32" ply
ollowed by the flat-wire springs and step. The
 this has fully dried, paint the frame black.
emly is made of dissimilar materials, use CA
black. When dry, attach the front axle to the

can be fitted on the axles, and the small eyelet

a horse was often used to pull it. One possibil-
ores, tack shops, or online.

of Garden Railways magazine. While supplies
$1.50 per set ($2.00 foreign) to: Sidestreet Ban-
te list of available plans can be found at www.
to the above address.
heast Narrow Gauge for $6 + $2.50 shipping
y kit (including wheels, less horse), it is avai-
ge, PO Box 191, Wiscasset ME 04578. Web site:

2. These drawings may be photocopied by indi-
ry commercial use or for distribution is prohib-
Cut from 1/8" stock

side view

.04" dia. wire

flat wire

mud guard

thin ply

flat wire
Cut from \( \frac{1}{16} \)" stock

BODY

rear view

seat cushions

(pin make from \( \frac{1}{8} \)" balsa)
seat cushions

- pin
- make from ½" balsa
top view

\( \frac{1}{16} \)" o.d. tube

\( \frac{5}{16} ") sq.

cotterpin

\( \frac{1}{16} ") dia. rod

eyelet
Are you working in a different scale?

If you are working in 1:32 scale, reduce these drawings to 63%.
If you are working in 1:29 scale, reduce these drawings to 70%.
If you are working in 1:24 scale, reduce these drawings to 88%.
If you are working in 1:22.5 scale, reduce these drawings to 90%.
If you are working in 16mm scale, enlarge these drawings to 107%.
If you are working in 1:13.7 (⅞") scale, enlarge these drawings.

**FRAME**

*side view*

flat wire

*step*

side view

card d

.04" dia. wire
at scale?

uce these drawings to 63%.
uce these drawings to 70%.
uce these drawings to 88%.
duce these drawings to 90%.
large these drawings to 107%.
ale, enlarge these drawings to 148%.

Card disc
FRONT AXLE & SHAFTS

- eyelet
- 1/16" dia. rod
- cotterpin

front axle
front view

side view