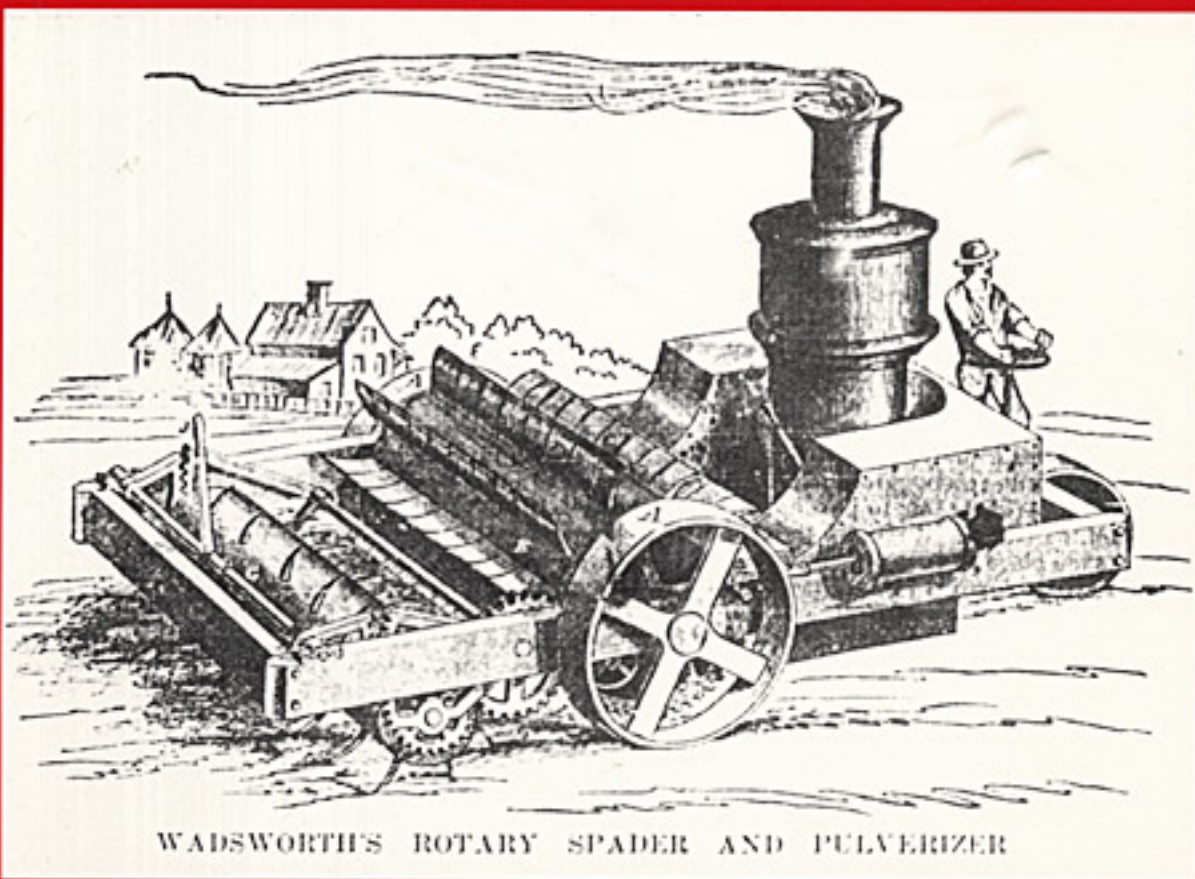


Steam Power on California Roads and Farms (1858-1911)



WADSWORTH'S ROTARY SPADER AND PULVERIZER

Jack Alexander

JAMES BOWSTEAD,

JACOB WELTY.

U N I O N
IRON AND BRASS
FOUNDRY,

— AND —

M A C H I N E S H O P,

FRONT STREET, BETWEEN N AND O,
S A C R A M E N T O.

The above Establishment is now in successful operation, the entire machinery being perfectly new, and having a good stock of materials on hand. The Proprietors are prepared to fill all orders for

MACHINERY AND CASTINGS,

Of every description, at short notice.

Our facilities are unsurpassed for building and repairing

Steam Engines,

Quartz Mills,

Grist Mills,

Saw Mills,

Malt Rollers, Threshing Machines,

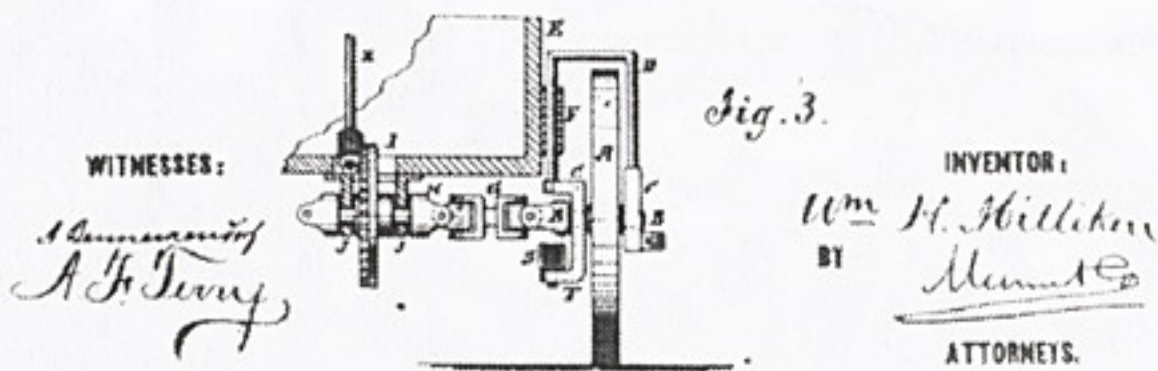
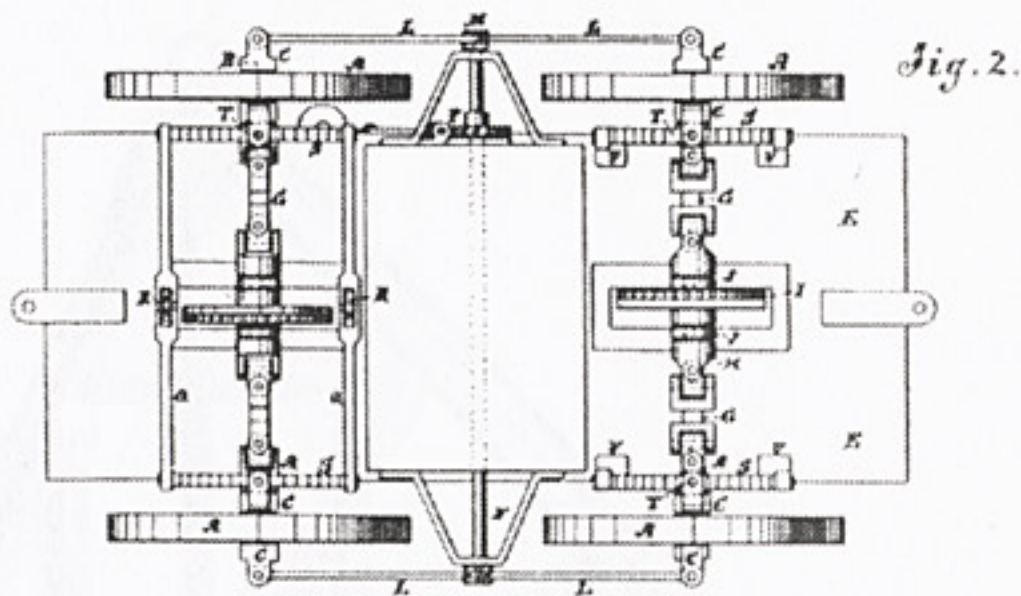
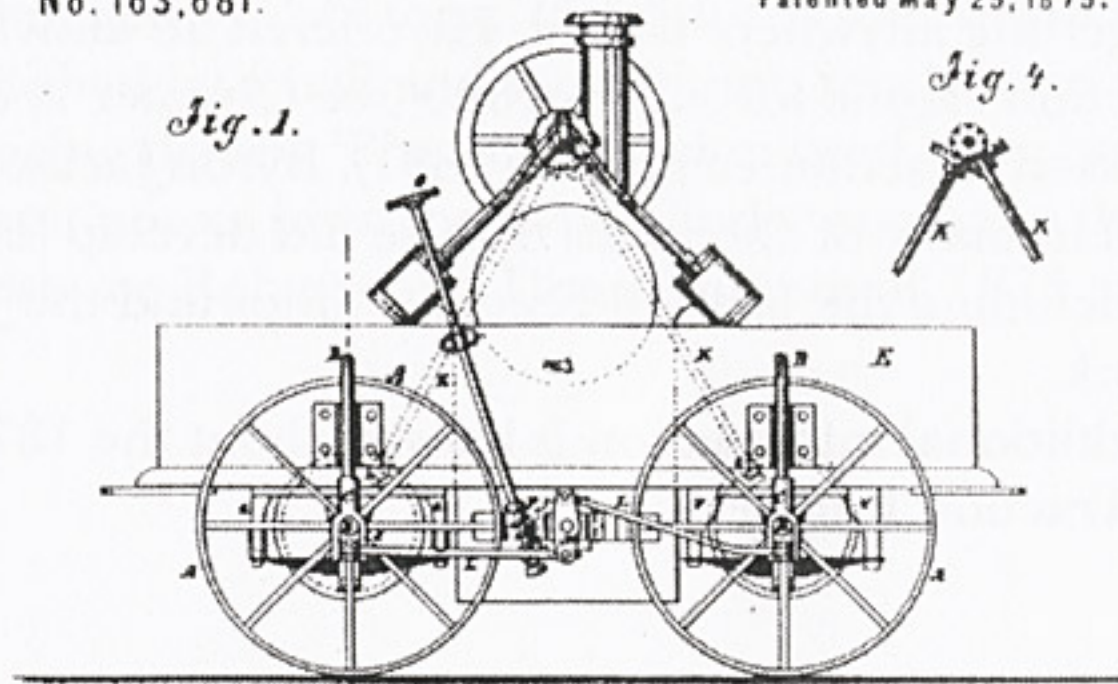
Horse Powers, Gearing, etc.

Steamboat Repairing and Blacksmithing,

Of all Kinds.

Cast Iron Fronts and Columns, Railings, Door and
Window Sills, etc.,

Made to order, at short notice, and on reasonable terms.



2.9 The Milliken Traction Engine of 1875

In 1875 a patent was granted to W. H. Milliken of Sacramento, California for a traction engine with four driven wheels and with four-wheel steering. Power was directed to each axle by bevel gears from the centrally mounted steam engine and steering was accomplished by dual universal joints for each wheel. The patent drawing and description⁶⁰ are the only known information on this traction engine and it is not known if it was constructed.

3.3 The Merritt and Kellogg Traction Engine of 1872

A Merritt and Kellogg engine was demonstrated in Sacramento, California by the California agent Keller and Company in April 1872 and reported in the Sacramento Daily Union.¹⁰² The engine was described as 14 horsepower, with a weight of 5,500 pounds, with the two rear wheels being driven by an endless chain. The engine was designed to run threshing engines and then move the thresher and the engine to it's next job. A patent was granted to D. W. Kellogg in January 1873¹⁰³ for his engine and Keller and Company ran advertisements in the Pacific Rural Press.¹⁰⁴

D. W. KELLOGG.

Traction or Portable-Engines.

No. 135,128.

Patented Jan. 21, 1873.

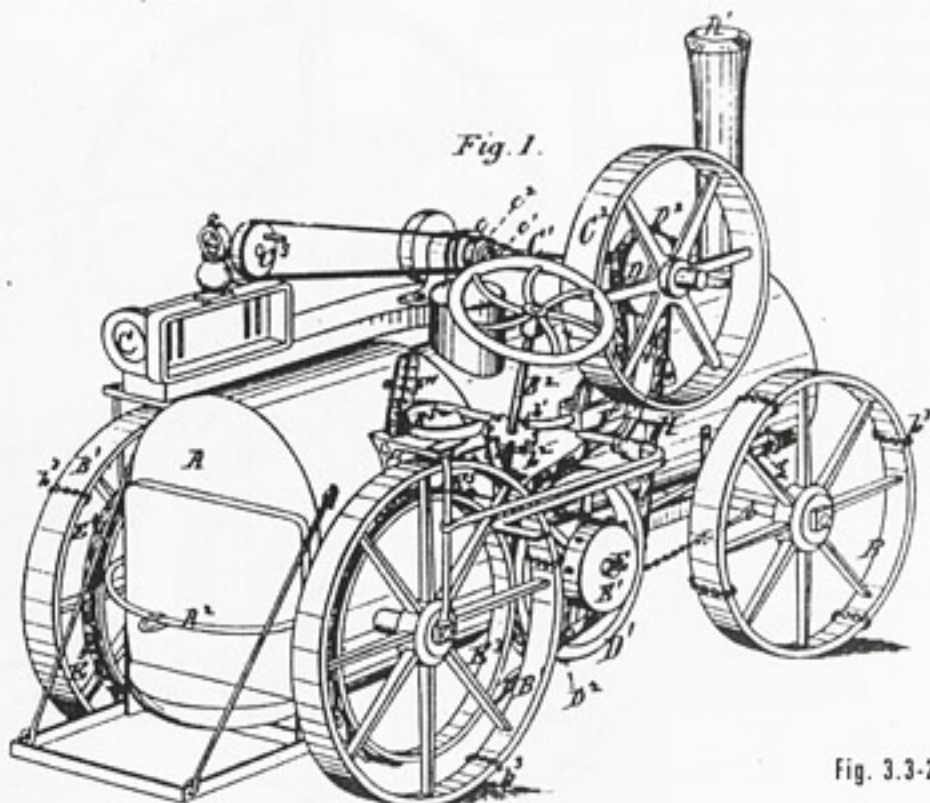


Fig. 3.3-2

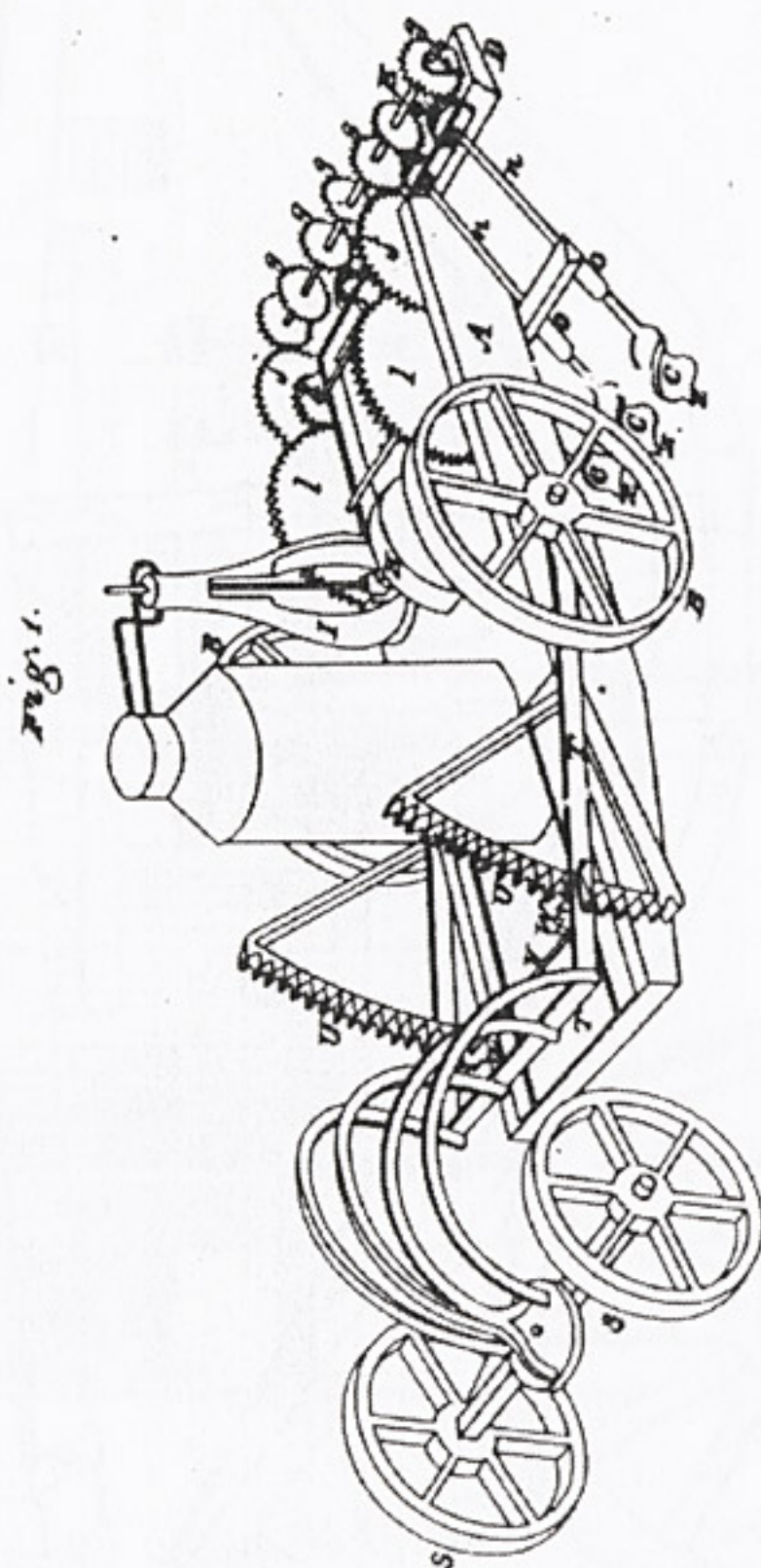
5.12 The Beaumont Steam Plow of 1875

A patent was issued to D. Beaumont of Sacramento, California in May 1875 for a steam plow,²²³ that consisted of a number of large augers turning the soil. This machine was intended to be pulled by horses. It is not known if this steam plow was ever constructed.

D. BEAUMONT.
Steam-Plow.

No. 162,884.

Patented May 4, 1875.



Witnesses
Geo. H. Strong
Jon. L. Dorn

Inventor.
Duncan Beaumont
by Roney & Co
Attys

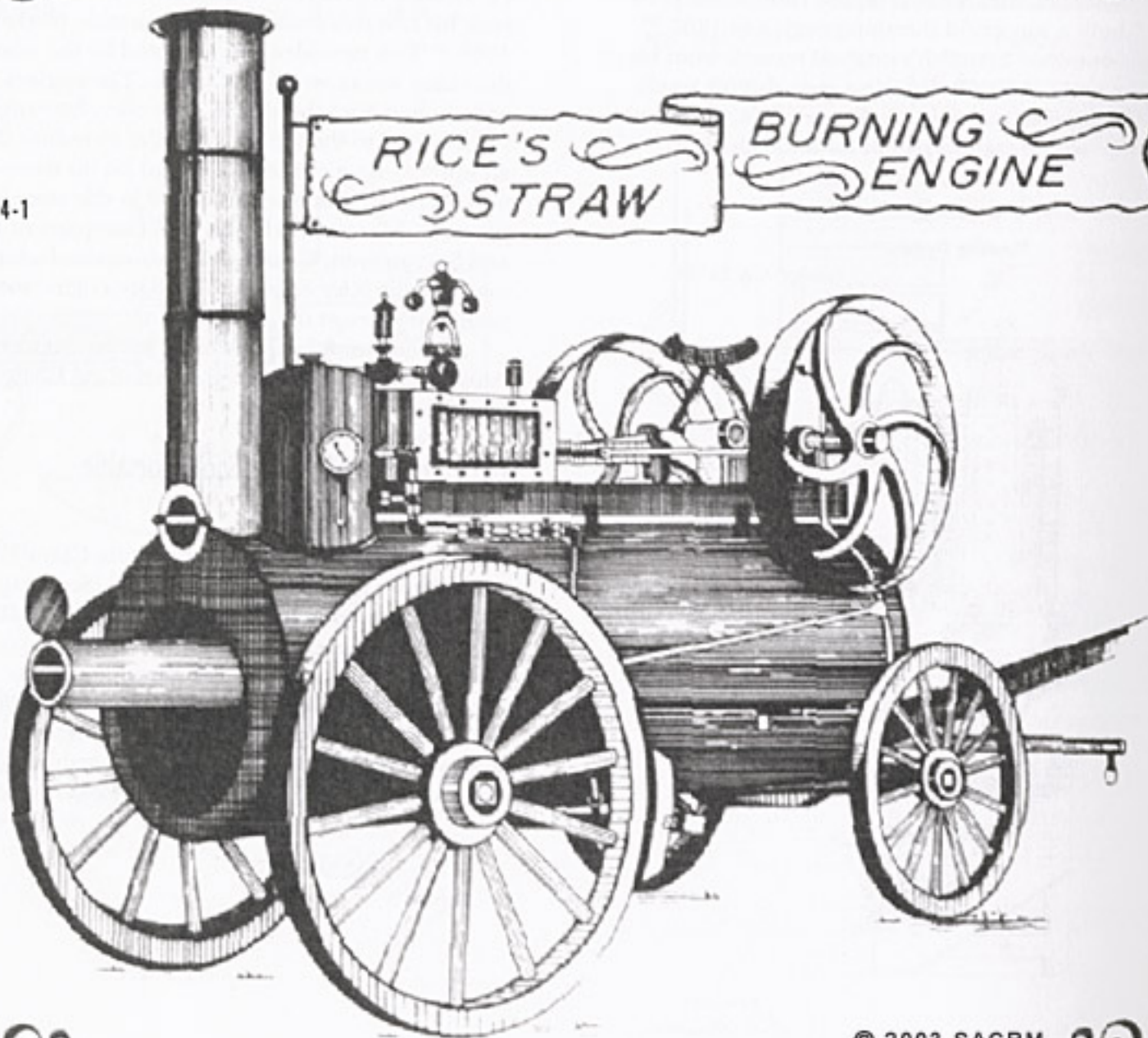
Fig. 5.12-1

8.4 The Rice Portable Engine of 1863

H. W. Rice of Hayward, California in Alameda County, built his first two straw-burning portable threshing engines in 1863.²⁹¹ This new idea was accepted by the wheat growers of the valley where wood was scarce. The engines before 1875 were bolted onto the side of the boiler. Starting in 1875 they were moved to the top of the boiler to reduce the chance of an upset.²⁹² Rice obtained a patent on his straw-burning portable engine in May 1875 and in this same year sold his patent to Marcus C. Hawley and Company of San Francisco and Sacramento, California,²⁹³ who manufactured and sold many of the Rice engines. The Rice engine took first premium twice at the State Fair.

A Rice Portable Threshing Engine survives as part of the Antique Mechanics Society Agricultural Equipment Collection at U. C. Davis.

Fig. 8.4-1



9.2 The Wood and Mann Portable Engine of 1867

In 1867 the Wood and Mann's Portable Steam Engine, manufactured in Utica, New York, was imported to California by their agent, Baker and Hamilton of San Francisco and Sacramento, California.^{306,307}

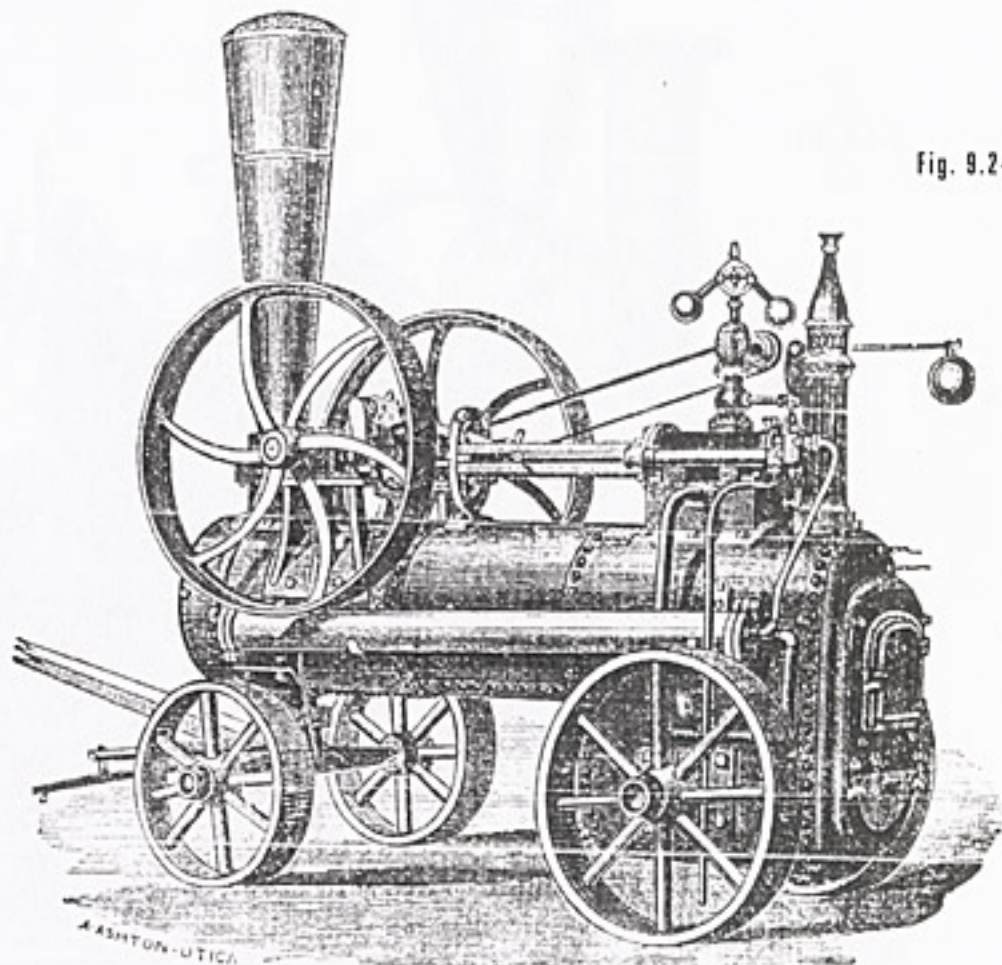


Fig. 9.2-1