

THE GRAND RIVER TIMES.

VOLUME III.

GRAND HAVEN, MICHIGAN, WEDNESDAY, FEBRUARY 8, 1854.

WHOLE NUMBER 133.

THE GRAND RIVER TIMES
IS PUBLISHED EVERY WEDNESDAY EVENING, BY
J. W. BARNES & Co.

Office over H. Griffin's Store, Washington Street.
TERMS.—Payment in Advance.
Taken at the office, or forwarded by mail, — \$1.00
Delivered by the carrier in the village, — 1.50
One shilling in addition to the above will be
charged for every three months that payment is
delayed.

No paper discontinued until all arrearages are
paid, except at the discretion of the publishers.

Terms of Advertising.
One square (12 lines or less), first insertion fifty
cents, twenty-five cents for each subsequent in-
sertion. Legal advertisements at the rates pre-
scribed by law. Yearly or monthly advertisements as
follows:
1 square 1 month, \$1.00 1 square 1 year, \$5.00
1 " 3 " 2.00 1 column 1 " 20.00
1 " 6 " 3.00 1 " 1 month, 5.00

Advertisements unaccompanied with written or
verbal directions, will be published until ordered
out, and charged for. When a postponement is
added to an advertisement, the whole will be
charged the same as for the first insertion.

Letters relating to business, to receive at-
tention, must be addressed to the publishers—post
paid.

BUSINESS DIRECTORY—1854

WILLIAM HATHAWAY, Jr., Judge of Pro-
bate for Ottawa Co. P. O. address, Crookery,
Ottawa Co., Mich.

NOYD G. POST, Clerk of Ottawa Co. Office
over H. Griffin's store, opposite the Washington
House.

GEORGE PARKS, Treasurer of Ottawa Co.,
and Justice of the Peace. Office third door be-
low the Washington House, up stairs.

WILLIAM N. ANGEL, Register of Deeds,
and Notary Public for Ottawa Co. Office over
H. Griffin's store, Washington street, opposite
the Washington House.

R. W. DUNCAN, Attorney at Law, Prosecuting
Attorney, and Circuit Court Commissioner for
Ottawa Co. Office third door below the Wash-
ington House, up stairs.

MORRIS BUCK, County Surveyor. Residence,
Polkton, Ottawa Co., Mich.

M. B. HOPKINS, Attorney and Counsellor at
Law and Solicitor in Chancery. Office first door
west of H. Griffin's store.

A. W. SQUIER, Physician and Surgeon, Steels
Landing, Ottawa Co., Mich.

MORRIS BUCK, Physician and Surgeon—
Polkton, Ottawa Co., Mich.

STEPHEN MONROE, Physician and Sur-
geon. Office over J. T. Davis' Tailor Shop—
Washington street.

L. K. DEVELLY, Tailor and Cutter. The sub-
scriber has opened his shop, and would respect-
fully invite the attention of the citizens of Mus-
kegon and vicinity who are in want of a first
rate garment, good and stylish. I feel confident
in giving entire satisfaction to those who may
favor me with their patronage. Muskegon, Ot-
tawa Co., Mich.

HENRY MARTIN, successor to Ball & Mar-
tin, Storage, Forwarding and Commission Mer-
chant. Grand Rapids, Mich.

JOHN T. DAVIS, Merchant Tailor. Shop on
Washington street, second door west of H. Grif-
fin's store.

GILBERT & CO., Storage, Forwarding and
Commission Merchants, dealers in Dry Goods,
Clothing, Boots and Shoes, Crockery, and Stone
Ware, Hardware, Groceries, Provisions and Ship
Stores, Lumber, Shingles, Staves, &c.

FERRY & SONS, Dealers in Dry Goods, Gro-
ceries, Provisions, Hardware, Clothing, Boots
and Shoes, Crockery and Medicines; and man-
ufacturers and dealers in all kinds of lumber.
Water street.

WM. M. FERRY, Jr. Wm. M. FERRY.

L. M. S. SMITH, Dealer in Drugs, Medicines,
Paints, Oils and Dye Stuffs, Dry Goods, Gro-
ceries and Provisions, Crockery, Hardware, Books,
Stationery, &c. At the Post office, corner of
Park and Barber streets, Mill Point, Mich.

HOPKINS & BROTHERS, Storage, Forward-
ing and Commission Merchants; general dealers
in all kinds of Dry Goods, Groceries, Grain and
Provisions; manufacturers and dealers whole-
sale and retail in all kinds of lumber. Mill
Point, Mich.

C. DAVIS & CO., Dealers in Dry Goods, Gro-
ceries, Provisions, Hardware, Crockery, Boots and
Shoes, &c. Muskegon, Mich.

WASHINGTON HOUSE, By Henry Penno-
ver. The proprietor has the past spring newly
fitted and partly re-furnished this House, and
feels confident visitors will find the House to
compare favorably with the best in the State.

WILLIAM TELL HOTEL, By Herman Jo-
achim. This House is pleasantly situated with
excellent rooms well furnished, and the table
abundantly supplied with the luxuries and sub-
stantials of life.

HORACE MERRILL, Boot and Shoemaker.
Boots and Shoes neatly repaired, and all orders
promptly attended to. Shop one door below the
Washington House.

J. MULDER, Clock and Watch Maker. Mill
Point, Mich., is prepared to do all kinds of work
in the best manner and on the most reasonable
terms.

HENRY GRIFFIN, Justice of the Peace and
Notary Public for Ottawa County, has resumed
his former Land Agency business, and will at-
tend promptly to the payment of non-resident's
taxes; will negotiate for the purchase or sale of
both pine and farming lands. Deeds, Bonds or
mortgages, &c., executed at reasonable rates
and with dispatch. Office opposite the Wash-
ington House, Grand Haven.

CROSVENOR REED, Attorney and Counsel-
or at Law. All business entrusted to me will be
promptly and satisfactorily attended to. Resi-
dence, Charleston Landing, Ottawa Co., Mich.

R. M. MITCHELL & CO., Forwarding and
Commission Merchants, Fire Proof Brick Ware-
house, Nos. 192 and 194 South Water Street,
Chicago, Ill. Goods received and forwarded to
Grand Haven with dispatch, and at the lowest
figures. Cash advances made on consignments.

WM. PRETSSER, Watch-Maker and Jeweler,
below the Catholic Church, Grand Rapids, Mich.
Particular attention paid to repairing fine
Watches.

THE VACANT CHAIR.

BY J. W. BAKER.

Sad memory wakes the mournful lyre,
And chants a melancholy air,
As seated by the cheerful fire,
I gaze upon that vacant chair,
Bright images that ne'er depart,
Flit in the shadows of my heart.

The band is broken—that bright chain,
Of golden links, discolored, seems;
My brightest earthly hope is slain,
And shadows haunt my sunny dreams—
The hours move on with slower pace,
I miss that dear familiar face.

The silvery tones of friendship fall
Like showers upon the smitten earth,
The dying look, the funeral pall,
Still linger round the social hearth;
Though joys seem reigning everywhere,
My bleeding heart—'tis midnight there.

That silken tie, which many years
Had closely knit together,
Made firm by joys, and grief, and tears,
Refuses now to sever;
Though death hath sent an arrow there,
And vacant made his wonted chair.

Yet one sweet ray, one glittering star,
Darts gently o'er the darkening scene,
Like angel-whispers from afar,
A soothing voice is heard between—
"I still am near, with soothing power,
To comfort every lonely hour."

[Rural New Yorker.]

EXTRAORDINARY JUGGLING FEAT.

In the early part of the last century, a physi-
cian, named Agricola, living at Ratisbon, in Ger-
many, obtained great celebrity by certain dis-
coveries which he declared he had made as to the
multiplication of plants and trees. He could
produce, he said, from a small branch, or even
from a leaf, six large forest trees in the course
of an hour, through the sole instrumentality of
fire. He published several works on the sub-
ject, one of which was published at Amsterdam,
in 1720. Its title was, "Agriculture parfaite, ou
nouvelle Deconverte," &c. It has been supposed
that he had learnt the secrets of the Hindoo ju-
glers, whose feats in the same line are of the
most extraordinary character. They actually
sow the seed of any tree which the spectators
call for, in the earth, and after a few cabalistic
words over it, a mulberry, a plum, or a walnut
plant, is seen gradually springing upwards until
it becomes a large tree, with its branches. Nor
is this all. The fruit is plucked and given to
the spectators to eat, and while he is engaged
in partaking of the enchanted dates or walnuts,
the branches of this miraculous tree are crowd-
ed with birds of every plumage, who will fill the
air with their melody. A signal is then given,
and the tree, with its feathered inhabitants, dis-
appears in an instant, leaving behind it no trace
of existence!

The author of the "Oriental Annual," an En-
glish gentleman of unquestionable veracity, gives
an almost incredible description of a juggling
performance at which he was present.

The operator introduces into the middle of
the circle a naked little girl, about eight years
old, in a wicket. The girl is shown to all spec-
tators. The operator then enters into conversa-
tion with her, which soon assumes an angry
tone; he threatens to kill her with the drawn
sword, she supplicates for mercy, and while her
piteous cries grow louder and louder, he plunges
the weapon into her bosom two or three times
successively. The earth is dyed with blood,
while her agonizing groans announce dissolution.
The spectators are ready to fall on the
wretch whom they believe to be guilty of so
barbarous a murder, when the little girl enters
the circle from without, dressed in her usual at-
tire, and as gay as if nothing had happened to
her!

A still more extraordinary feat than that was
performed in the presence of the Mogul Emper-
or Jehangire, who gives an account of it in his
autobiography. The performers produced a liv-
ing man, whose head they cut off, in the first in-
stance. They next divided the limbs from the
trunk, and the mutilated remains lay on the
ground for some time. A curtain was then ex-
tended over the spot, and one of the perform-
ers putting himself under the curtain, emerged
from it again in a few minutes, followed by the
individual who was supposed to have been com-
pletely dissected!

His Mogul Majesty gives the following mi-
nute accounts of some other performances of the
same jugglers which are very wonderful.
They took a small bag, and having shown
that it was entirely empty, one of them put his
hand into the bag; on withdrawing his hand
again, out came two game-cocks of the largest
size and great beauty, which immediately assailed
each other with such force and fury, and their
wings emitted sparks of fire at every stroke.—
This continued for the full space of an hour,
when they put an end to the combat by throwing
a sheet over the animals. Again they withdrew
the sheet, and there appeared a brace of partridges,
with the most brilliant and beautiful plu-
mage, which immediately began to tune their
throats as if there was nothing human present,
picking at worms with the same kind of chuckle
as they are heard to use on the side hill. The
sheet was thrown, as in the other instance, and
when again withdrawn, instead of those beauti-
ful birds, there appeared two frightful black
snakes, with flat heads and crimson bellies, which
with open mouths and heads erect, coiled togeth-
er and attacked each other with the greatest
fury, and so continued to do, until as it appear-
ed, they became quite exhausted, when they fell
asunder.

They made an excavation in the earth in the
shape of a tank or reservoir, of considerable di-
mensions, which they requested us to fill with
water. When this was done, they spread a cov-
ering over the place, and after a short interval,
having removed the cover, the water appeared to
be one sheet of ice, and desired that some of
the elephant keepers might be directed to lead

the elephants across. Accordingly, one of the
men set his elephant upon the ice, and the ani-
mal walked over with as much ease and safety
as if it were a platform of solid rock, remaining
for some time on the surface of the frozen pond
without occasioning the slightest fracture in the
ice. As usual, the sheet was drawn across the
place, and being again removed, every vestige of
ice, and even moisture of any sort, had complet-
ely disappeared.

They procured a blank volume of the purest
white paper, which was placed in my hands, to
show that it contained no figures or any colored
pages whatever, of which I satisfied myself and
all around. One of the men took the volume
in hand, and the first opening exhibited a page
of bright red, sprinkled with gold, forming a
blank tablet splendidly elaborated. The next
turn presented a leaf of beautiful azure, sprinkled
in the same manner, and exhibiting on the mar-
gin numbers of men and women in various atti-
tudes.

The juggler then turned to another leaf which
appeared of a Chinese color and fabric, and on
it were delineated herds of cattle and lions, the
latter seizing upon the kine in a manner that I
never observed in any other paintings. The next
leaf exhibited was of a beautiful green, similarly
powdered with gold, on which was represented,
in lively colors, a garden, with numerous cypres-
suses, and flowering shrubs, in full bloom; and
in the midst of the garden, was an excellent pavil-
lion.

The next change exhibited a leaf of orange,
in the same manner powdered with gold, on
which the painter had delineated the representa-
tion of a great battle, in which two adverse gen-
eralities were seen engaged in the struggles of mortal
conflict. In short at every turn of the leaf, a
different color, scene, and action was exhibited,
such as was indeed most pleasing to behold.—
But of all the performances, the latter of the vol-
ume of paper was that which afforded me the
greatest delight so many pictures and extraordi-
nary changes having been brought under view that I
must confess my utter inability to do justice in
the description.

In observing upon the extraordinary nature of
these performances, the Emperor puts aside the
supposition that they were to be ascribed to a
mere visual deception:

"They very evidently partake," he says, "of
something beyond the exertion of human ener-
gy. I have heard it stated that the art has been
called the Asmonean (celestial), and I am in-
formed that it is also known and practiced to a
considerable extent in the nations of Europe. It
may be said, indeed, that there exists in some
men a peculiar and essential faculty, which en-
ables them to accomplish things far beyond the
scope of human exertion, such as frequently to
baffle the utmost subtlety of the understanding
to penetrate."

LOWER CALIFORNIA.—Lower California, the
scene of the operations of the freebooters from
the State of California, is 700 miles long and
from 50 to 100 miles wide. It is a peninsula,
which commences about latitude 22 degrees
north, and runs about south-south-west, and
forms the Gulf of California. It has over 1,200
miles of sea coast and some very good harbors,
among which may be named San Quinte, Mag-
delen, San Jose, La Paz, Muliga, and Ensenada,
nearly opposite Guaymas. La Paz was captured
by the United States sloop-of-war Portsmouth
in 1847, and was retained for several months by
a battalion of New York volunteers. At that
time the population was estimated at about ten
thousand, of which about two hundred were In-
dians. A chain of broken and irregular moun-
tains runs its entire length, with spurs running
each way, to the gulf on one side and the ocean
on the other. It is estimated that some of these
mountains are 5000 feet high. The plains be-
tween the spurs are numerous, broad, and cov-
ered with dwarf trees, and in the rainy season
with a thin grass, which is very nutritious, and
in the dry season affords valuable food for large
herds of cattle and horses. There are but few
streams, and water is scarce; but in the low
ground it can be found in abundance by digging
ten or twelve feet. Vegetables grow with great
rapidity, and nearly all the tropical fruits can be
raised with very little labor and in great perfec-
tion. The general appearance of the coast is
exceedingly barren and forbidding, and the in-
habitants roving and indolent. Lemons, olives,
grapes, figs, dates, sugar cane, corn, potatoes,
beans, and cabbages, are raised in abundance,
which together with the hides, &c., are exported
to the neighboring provinces. The pearl fishing
has hitherto been prosecuted with considerable
profit. This, together with the mines of gold,
silver, copper, &c., it is thought, in the hands of
American enterprise, may be profitably worked.
In the Island of Carmon, in the gulf opposite
Santo, are extensive salt mines, which are quite
sufficient to supply the whole of the Pacific coast.
The State of Sonora, the ultimate destination of
these expeditionists, and which lies across the
gulf, constituting the northernmost department
of Mexico, is said to be rich in mineral and ag-
ricultural wealth. The principal port on the
east side of the gulf is Guaymas, which is the
capital of Sonora, and is said to be a fine harbor.
[Rochester Democrat.]

A GOOD WAY OF HEARING FROM HOME.—A
young man in California, whose friends had not
remembered him as he thought they ought,
adopted the following expedients:

He sat down and wrote some six or seven
letters to different persons at home, inquiring
the price of land and stock—what he could buy
a handsome farm, of 200 or 300 acres, for &c.;
intimating that he had large sums invested, and
was very rich generally. By return of mail he
received not less than seven letters, all anxiously
inquiring after his health, when he was com-
ing home, &c., and has received three or four
every mail since, including some very warm
ones from an old and very cold sweetheart.

An "old liner" says the arrest of the U. S.
Marshal, at Erie, is a trick of the mobiles to
get United States troops quartered at Erie, so
that Erians can get pay for feeding them.

THE BABY'S COMPLAINT.

Now, I suppose you think, because you never
see me do anything but feed and sleep, that I
have a very nice time of it. Let me tell you
that you are mistaken, and that I'm tormented
half to death, though I never say anything about
it. How should you like every morning to have
your nose washed up instead of down? How
should you like to have a pin put through your
dress into your skin, and have to bear it all day
until your clothes were taken off at night? How
should you like to be held so near the fire that
your eyes were half scorched out of your head,
while the nurse was reading a novel? How
should you like to have a great fly light on your
nose, and not know how to take aim at him
with your little, fat, useless fingers? How
should you like to be left alone in the room to
take a nap, and have a great pussy jump into
your cradle, and sit staring at you with her great
green eyes till you were all in a tremble? How
should you like to reach out your hand for the
pretty, bright candle, and find out that it was
away across the room instead of close by? How
should you like to tire yourself out crawling
away across the carpet to pick up a pretty
button or pin, and have it snatched away as
soon as you begin to enjoy it? I tell you it is
enough to ruin any baby's temper. How should
you like to have your mamma stay at a party
till you were as hungry as a little cub, and be
left to the mercy of a nurse who trotted you
up and down till every bone in your body ached?
How should you like, when your mamma dressed
you up all pretty to take the nice, fresh air, to
spend the afternoon with your nurse in some
smoky kitchen while she gossiped with one of
her cronies? How should you like to submit
to have your toes tickled by all the little chil-
dren who insisted upon "seeing baby's feet"?
How should you like to have a dreadful pain
under your apron, and have every body call you
"a little cross thing," when you couldn't speak
to tell what was the matter with you? How
should you like to crawl to the top of the stairs
(just to look about a little) and pitch heels over
head from the top to the bottom?

Oh, I can tell you it is no joke to be a baby!
such a thinking as we keep up; and if we try
to find out any thing we are sure to get our
brains knocked out in the attempt. It is very
trying to a sensible baby who is in a hurry to
know every thing and can't wait to grow up.
[Fanny Fern.]

POWER OF A GOOD MAN'S LIFE.—The beauty
of a holy life constitutes the most eloquent and
effective persuasive of religion, which one hu-
man being can address to another. We have
many ways of doing good to our fellow crea-
tures; but none so efficacious as leading virtu-
ous, upright, and well-ordered lives. There is an
energy of moral suasion in a good man's life,
passing the highest efforts of the orator's gen-
ius. The seen but silent beauty of holiness,
speaks more eloquently than the tongues of
men and angels. Let parents remember this.—
The best inheritance a parent can bequeath to a
child is a virtuous example, a legacy of hallow-
ed remembrances and associations. The beau-
ty of holiness beaming through the life of a lov-
ed relative or friend, is more effectual to
strengthen such as do stand in virtue's ways,
and raise up those that are bowed down, than
command, entreaty or warning. Christianity it-
self I believe, owes by far the greater part of its
moral power, not to the precepts or parables of
Christ, but to his character. The beauty of that
holiness which is enshrined in the four biogra-
phies of the Man of Nazareth, has done more,
and will do more to regenerate the world, and
bring in an everlasting righteousness, than all
other agencies put together. It has done more
to spread his religion in the world than has ev-
er been preached or written on the evidences of
Christianity. [Chalmers.]

ELEVATED RAILWAY.—The American Artisan
publishes an article, in which it is claimed by
the projector that an Elevated Iron Railway
could be built to the Pacific cheaper and with
more facility than a railroad upon the ground.—
He proposes to build a double track, resting up-
on sections of columns, placed about two rods
apart. The body of the car hangs below the
track, so that there is a space of thirteen or four-
teen feet beneath the structure, and it is neces-
sary to ascend but slightly to reach the cars.—
The "tracks" are attached to trusses stretching
from column to column, and are firmly braced.
But little or no grading is required as he uses
long columns in passing over valleys and rav-
ines, and climbs hills and mountains by using a
"cogged track" outside and above the ordinary
one, adapted to the smaller cogged wheels. The
principal part of the work of building would be
centered at iron mines, and it could be built in
any latitude, without the snow destroying its utility.

IMPORTANT.—The Cleveland Herald, after
speaking of the determination of President
Pierce to enforce the law at Erie, says:

The same letter states that the Senate com-
mittee on the judiciary has resolved to bring for-
ward forthwith a bill making the railroad from
the Ohio line on the west to the New York
State line on the east, a military and post road.
Very distinguished jurists give the opinion
that such a measure will effect all that is desir-
ed.

The Cleveland Democrat says truly: "The
growth of the borough of Erie has exceeded
that of any point on the lake. In the short
space of one month she has sprung from the
depths of profound obscurity to the height of
infamous notoriety. No other spot upon the
globe has gone ahead with such speed, or got
into the papers so extensively."

ANOTHER SEMINOLE WAR AHEAD.—Govern-
or Boone, of Florida, has issued orders to Brig-
adier General Johnson, of that State, to orga-
nize his brigade at once, in pursuance of an act
of the Legislature, providing for the final re-
moval of the Indians, by force, if necessary.

A quaint old writer defines egotism to be,
"auffering the private I to be too much in the
public eye."

From the Iowa Gazette.

MR. R. HIGHAM'S REPORT.

We make liberal extracts below from the Re-
port of R. Higham, Chief Engineer on the O. &
O. Railroad, which we trust will be read with
interest by our readers. The Report is mainly
statistical, showing that the Road when com-
pleted will be one of the best paying roads in
the Union. We are glad that facts and figures
render it so certain that this Railroad is destin-
ed to be a link in the most important line of
travel between the Atlantic sea board and the
Mississippi, the great father of waters. But to
the Report:

The Oakland and Ottawa Railroad commen-
ces at the termination of the Detroit and Pontiac
Railroad in the village of Pontiac, and terminat-
es at Grand Haven, on Lake Michigan, in
length 160 miles.

The Detroit and Pontiac Railroad commences
in Detroit city and extends to Pontiac, twenty-
five miles, making the total distance from De-
troit to Grand Haven one hundred and eighty-
five miles. This portion of the road from De-
troit to Pontiac is now in operation, and is do-
ing a successful business.

The connections of the Oakland and Ottawa
Railroad, East, will be with the Great Western
Railway to New York and Boston; and West
by Steamboats across Lake Michigan to the Rail-
roads terminating in the cities on the West side
of the Lake. The Roads from the ports on the
west side of Lake Michigan are in rapid progress
west. From Milwaukee a Railroad is now in
profitable operation about eighty-five miles
west to the centre of the State, and is under
contract to the Mississippi. From Racine, Ke-
nosha, and other large towns on the west side
of the Lake, roads are being constructed, and at
least one, if not two will be opened West, to
the Mississippi River, and another one from Mil-
waukee North to the Mineral regions of Lake
Superior, by the time the Oakland and Ottawa
Railroad will be in operation to Grand Haven.

The route of the road commencing at Detroit,
runs through the counties of Wayne, Oakland,
Genessee, Shiawassee, Clinton, Ionia, Kent and
Ottawa, and will form the most natural outlet
east to Detroit, the commercial capital of the
State, for the counties above mentioned and also
the counties of Oceana, Mason, Newaygo, Mi-
costa, Montcalm, Gratiot, Isabella, Lapeer, Sag-
inaw, and part of the counties of Macomb, Allegan,
Barry, Eaton, Ingham, and Livingston,
comprising about thirteen thousand (13,000)
square miles, or one-sixth of the peninsula of
Michigan, embracing the fertile valleys of the
Shiawassee river, the Grand river, and their tribu-
taries, a territory not surpassed by any other
section of country in natural resources and ca-
pabilities to sustain a dense population. At Cor-
unna, in Shiawassee county, the road crosses
the coal beds of Michigan, which are now being
worked for domestic uses; at Grand Rapids, the
line passes the gypsum beds which are also ex-
tensively worked, and furnished quite an item
the past season of the exports from Grand Haven,
and will form a very important article of freight
to the road, being extensively used in the cul-
tivation of wheat instead of manure, as a fertili-
zer.

At Grand Rapids is the largest water power
in the State, which is extensively used; the city
of Grand Rapids is the second city in the State,
and is rapidly improving; it contains a popula-
tion of about five thousand (5,000). The open-
ing into the harbor at Grand Haven has had no
artificial improvements to aid in removing the
bar that forms at the debouch of all the rivers
entering the lakes, but the large volume of wa-
ter that flows out of the river has washed out
the sand and made a greater depth of water on
the bar than at the entrance of most of the oth-
er harbors on the Lake; vessels drawing nine
feet of water have no trouble in entering the har-
bor; after passing the bar the water is from
twenty to sixty feet deep, and the harbor form-
ed by the River and Bays extend some fifteen
miles. The entrance to the harbor is 650 feet
wide.

The proposed system of Railroad improve-
ments to develop the resources of Michigan by
constructing two roads North from the Oakland
and Ottawa Railroad to the Straits of Mackinaw,
thence to the Sault Ste. Marie, and from thence
through the mineral regions to the Montreal riv-
er, making in all a length of seven hundred and
fifty miles, of Railroad, the business of which, to
reach the city of Detroit, must pass over a por-
tion of the Oakland and Ottawa Railroad, and
the growing importance of the mining interests
on Lake Superior will soon make it necessary to
construct these roads, and a bill has been intro-
duced into Congress to donate public lands for
that purpose. If the roads are built either as
branches of the Oakland and Ottawa Railroad,
or as independent roads, they will furnish to the
Oakland and Ottawa Railroad an amount of busi-
ness not easily appreciated.

The curves, except at the Depots, are practi-
cally nearly equal to straight lines, being from
five to twenty thousand feet radius; the aggre-
gate length of the curved lines is increased by
this large radius of curvature, and amounts to
twenty-nine miles. The aggregate length of the
straight lines amounts to one hundred and fifty-
six miles. The longest straight line is twenty-
six miles. The proportion of curve to straight
line is sixteen per cent.

The road is calculated to be of the first class,
furnished and equipped equal to the business
that may be anticipated on such an important
thoroughfare.

The culverts, where possible to procure brick
or stone, are to be built of those materials, and
when such materials cannot be had, the timber
structures are to be built, and are designed with
reference to their being reconstructed in a per-
manent manner without interrupting the busi-
ness of the road. All the bridges that must be
of wood are calculated to be protected from the
weather and finished in the best manner to pre-
serve them from decay.

The estimated cost of the Oakland and Otta-
wa portion of the Road, including seventeen
miles of branches or double track, with 20 en-
gines, 18 passenger and 448 freight cars, includ-
ing those now in use on the Pontiac Road, with