

(12) **United States Plant Patent**
Blake

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(54) **PROSOPIS HYBRIDA PLANT NAMED**
'AMERICAN MESQUITE'

(50) Latin Name: *Prosopis hybrida*
Varietal Denomination: **American Mesquite**

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(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 105 days.

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(22) Filed: **Mar. 21, 2012**

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(51) **Int. Cl.**
A01H 5/00 (2006.01)

(52) **U.S. Cl.**
USPC **Plt./216**

(58) **Field of Classification Search**
USPC **Plt./216, 226**
See application file for complete search history.

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(57) **ABSTRACT**

A new and distinct variety of mesquite, botanically known as
Prosopis hybrida and identified as 'AMERICAN MES-
QUITE', which is particularly characterized by its complete
lack of thorns, upright branching with full foliage, rapid
growth in girth and height with exceptional strength.

7 Drawing Sheets

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Classification: The present invention relates to a new and
distinct variety of ornamental mesquite known botanically as
Prosopis hybrida.

Variety denomination: The new plant has the varietal
denomination 'AMERICAN MESQUITE'.

BACKGROUND OF THE INVENTION

The present invention comprises a new and distinct variety
of ornamental mesquite known botanically as *Prosopis*
hybrida. The new variety of this tree is unusual for the species
and appears to be the result of a cross between a *Prosopis*
alba, *Prosopis chilensis*, *Prosopis velutina* and *Prosopis*
glandulosa. It is completely thornless with very full foliage
and upright branching. The characteristic of this new variety
is exceptional in overall appearance and growth. The new
variety was discovered as a single plant in 2005 growing on
the west side of Whitfill Nursery at 2647 East Southern Ave.
in Phoenix, Ariz. in a block of seedling mesquite trees being
grown in containers. This new variety is not on any watering
system and appears to receive irrigation only from surround-
ing nursery stock, which does not appear to affect its growth
habit. This tree is approximately 12 years old. The original
tree was found growing on its own roots.

In 2005, using *Prosopis alba* root stock, fifty (50) buds
were taken from the new variety of *Prosopis hybrida* original
tree and budded onto the root stock, with a 95% take in the
buds. The growth habit was very vigorous, reaching an aver-
age height of 8 cm to 10 cm (3 to 4 inches) in a week from pop
of bud. At two weeks, an average of 22 cm to 25 cm (8½ to
10½ inches) of growth was recorded. This growth habit con-
tinues until a height of about 100 cm (40 inches) is reached,
and then some branching begins. The diameter of the trunk
appears to increase in size equal to the rapid growth in height.
There was no need to stake any of the new variety of budded
mesquites.

In 2006, 250 trees were budded using 45 buds from the 45
clones and 205 buds from the original tree, with a 98% take on
the buds. The root stock used for the 250 budded trees was

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Prosopis alba. The growth habit of the 245 takes of the new
variety budded trees was the same as the group of 45 budded
trees grown in 2005.

In 2007, 2008 and 2009 groups of 500 were budded each
year using 250 buds from the new variety of *Prosopis hybrida*
original tree and 250 from the previous cloned group. All five
generations of the new variety of *Prosopis hybrida* mesquite,
asexually reproduced by budding, have maintained the out-
standing characteristics of the first generation original tree
which are:

Completely thornless, very full foliage with upright
branching. Such budding has resulted in successful asexual
propagation and the tree is stable and reproduced true to type
in successive generation by such means.

SUMMARY OF THE INVENTION

A new and distinct variety of *Prosopis hybrida* American
Mesquite as illustrated and described, characterized by com-
plete lack of thorns, upright branching with full foliage, rapid
growth in girth and height with exceptional strength. This is
illustrated by its ability to withstand severe weather, includ-
ing wind and freezing temperatures for sustained periods of
time with no apparent damage and its resistance to stem
canker and root rot (*phymatotrichum omnivorum*, its excep-
tionally full foliage and beautiful upright branching).

BRIEF DESCRIPTION OF THE PHOTOGRAPHS

FIG. 1 is a color photograph of a mature thornless *Prosopis*
hybrida tree having a 30 foot canopy;

FIG. 2 is a color photograph of the buds in a spiraling
pattern around the pedicel;

FIG. 3 is a color photograph of the pinnae length and pairs
of leaflets;

FIG. 4 is a color photograph showing one petiole from node
of branch with average of six pinnae per petiole;

FIG. 5 is a color photograph showing young branching
with smooth and dark bark;

FIG. 6 is a color photograph showing the trunk and branches with coarse bark; and

FIG. 7 is a color photograph showing trunk and branches becoming more smooth and not shaggy.

DETAILED DESCRIPTION OF THE NEW VARIETY

The following is a detailed description of my new variety of *Prosopis hybrida* named American Mesquite.

All color descriptions herein are made in accordance with The Colour Chart of The Royal Horticultural Society of London. The new variety of *Prosopis hybrida* is characterized by its total absence of thorns and very full foliage with upright branching, unlike the *Prosopis chilensis*, *Prosopis celutina* and the *Prosopis glandulosa*.

The height of the mature thornless *Prosopis hybrida* tree is approximately 30 feet high, with a canopy diameter of 30 feet. The trunk circumference is approximately 150 cm (60") one foot above the ground. The bark color of the mature mother tree trunk is group Brown 200-A. The texture of the trunk being rough and shaggy, with fissures running vertical on the trunk, about 90 cm (3') from the ground up the trunk. Most of the fissures measure approximately 4-5 mm wide 1 1/2-2") and 23-30 cm (9-12") long showing a color of Group Greyed-Orange 165-B. At about 240 cm (8') up the trunk the fissures become smaller measuring 1-2 cm wide and 8-10 cm long and mostly disappearing beyond that. Branches 45 cm (18") in circumference are rough, but not as shaggy with a color of Group Brown-Grey 200-D. Branches 18 cm in circumference are more smooth and not shaggy with color Group Greyed-Green 197-B. Terminal branches 5 cm or less in circumference are smooth with the color Group Grey-Brown 199-A. There are no thorns present on any of the branches.

FOLIAGE

The new variety of *Prosopis hybrida* exhibits a foliage pattern an average of one petiole coming from the node of the branch, with an average of 6 pair of pinnae per each petiole. The petioles are about 5 to 6 cm long. Individual pinnae are about 10 cm to 13 cm long with an average of 27 to 30 pairs of leaflets per pinnae, spaced about 1/4 cm to 1/2 cm apart. Each leaflet is approximately 1 1/4 cm to 1 1/2 cm long and 1/4 cm to 1/2 cm wide. The terminal branches have about 28 to 30 petioles in a distance of 98 cm (3'3") with an average of 4 cm (1 1/2") between internodes. The color of the mature leaves, according to The Royal Horticultural Society of London Colour Chart, are Group Turquoise-Green 144-A. The new leaf or immature leaves color are Group Turquoise-Green 144-A for the upper portion and 143-C for the lower portion. The upper mature leaf is 147-B and the lower mature leaf is 146-C.

Leaflets are borne opposite, have no venation, are elongated with rounded ends and have an even margin.

SEED AND SEED POD

Mature seed pods average 11 cm to 13 cm long, 1 1/2 cm wide and 1/2 cm to 3/4 mm thick. Mature pods that have fallen from the tree have a curved shape and color of Group Greyed-

Orange 164-C. Average number of seeds per pod are 18 to 20. Mature seeds are approximately 3/4 mm long and 1/2 mm wide, with the shape being mostly oblong with the Color Group Greyed-Orange 164-B. Immature seed color is Group Grey-Brown 199-B.

FLOWERING

The appendage on which the bud forms are on an average 5 cm to 8 cm long and 1/16" inch in diameter, with the color Group Yellow-Green 148-D (RHC). The buds grow in a spiraling pattern around the pedicel (or stalk) and number approximately from 100 to 140 with an oval shape. When buds are mature they measure about 1/8 inch in length with the color of Group Green 138-B (RHC). When buds open the sepals (or calyx) contain approximately 5 points, measuring about 1/4 cm from base to tip, forming a star shape and with the color of Group Green 138-B (RHC). An average of 10 stamen surround the stigma inside the calyx, measuring about 1/4 inch or more in length with the color Group Yellow-Orange 20-A (RHC). The bloom is approximately 4-5 cm (1 1/2-2") long and 1 1/4 cm wide, with the color of Group Yellow-Orange 20-B (RHC). The observed bloom time is in March and April in Phoenix, Ariz. and have a mild, sweet fragrance

THORNS

The *Prosopis hybrida* mesquite has proven completely thornless from six (6) years of first generation and five (5) generations of asexually reproduction by budding from each generation. No thorns appeared at any stage of growth, nor did any develop into maturity. This distinguishing characteristic, thornless and no developing thorns, is in contrast to crosses of the *Prosopis chilensis*, the *Prosopis velutina* and the *Prosopis glandulosa* which are prone to develop thorns.

DISEASE RESISTANT

Since 2005 no stem cankers were ever observed on new variety of *Prosopis hybrida* Mesquite original tree or any of the clones. Cotton root rot (*Phymatotrichum Omnivorum*) does not appear to affect this tree.

COLD HARDY

In 2006 an extremely hard freeze of a 16 degree low was experienced. No apparent damage was sustained to the original tree with only the tips of top terminal branches freezing. The tree still retained over 60% of its leaves. Young trees also had the tips of the branches nipped and about 40% of their foliage lost. With winds sustained at 60+ mph no apparent damage was sustained by the original tree or the young budded trees.

I claim:

1. A new and distinct variety of *Prosopis hybrida* identified as 'AMERICAN MESQUITE' as illustrated and described, characterized by complete lack of thorns, upright branching with full foliage, rapid growth in girth and height with exceptional strength.

* * * * *



FIG. 1



FIG. 2



FIG. 3



FIG. 4

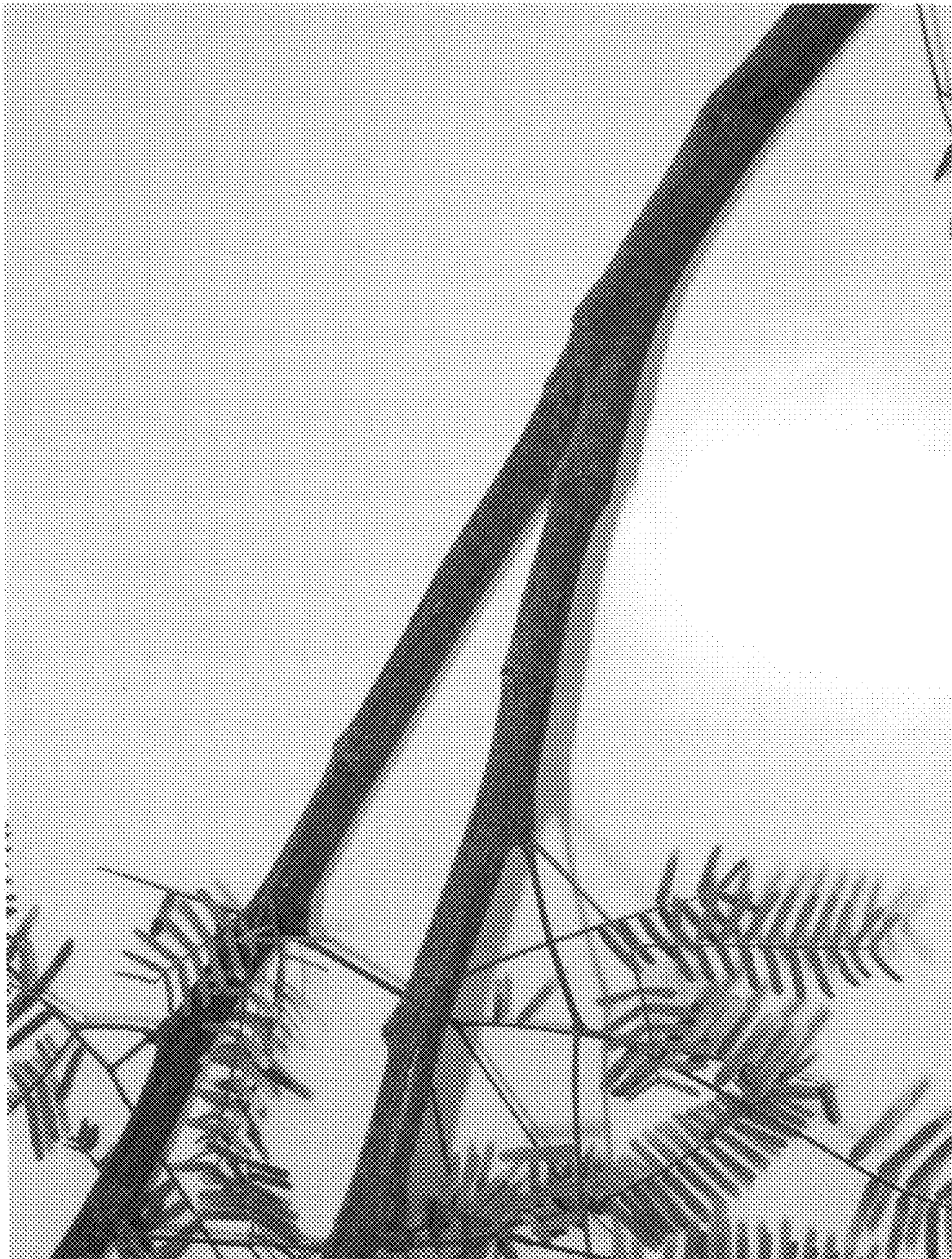


FIG. 5



FIG. 6



FIG. 7

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : PP24,702 P3
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DATED : July 29, 2014
INVENTOR(S) : Brian Edward Blake

Page 1 of 1

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On the Title Page

(54) Title Delete "PLANT"

Signed and Sealed this
Twenty-eighth Day of June, 2016

A handwritten signature in black ink, reading "Michelle K. Lee". The signature is fluid and cursive, with the first letters of each name being capitalized and prominent.

Michelle K. Lee
Director of the United States Patent and Trademark Office