March 27, 1962 G. A. LYON Re. 25,144

WHEEL COVER

Original Filed Nov. 10, 1952 3 Sheets-Sheet 1

Fig. 2

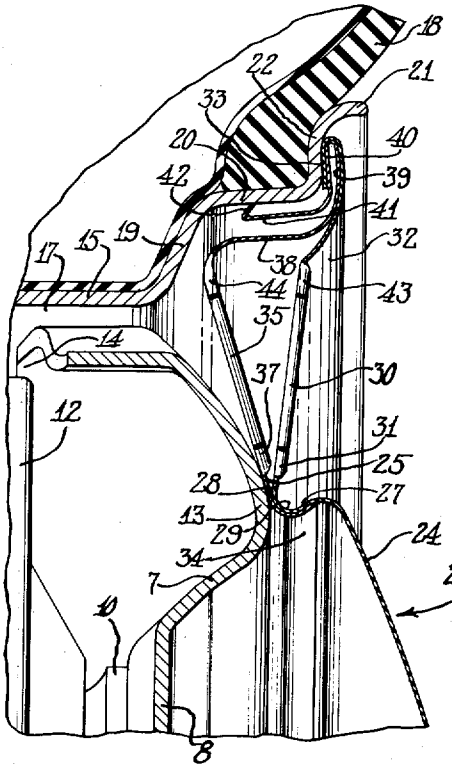


Fig. 3

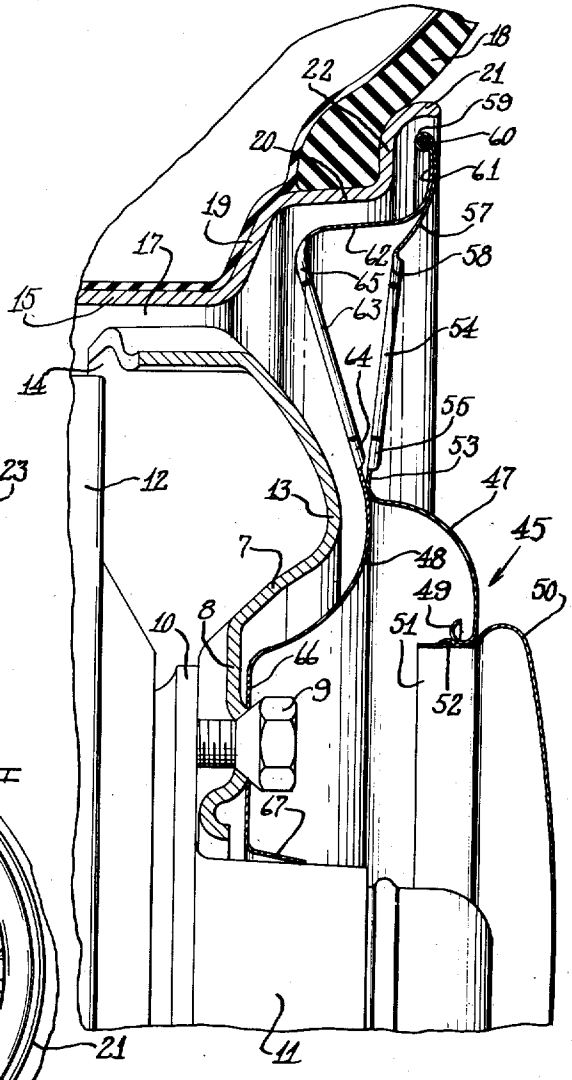
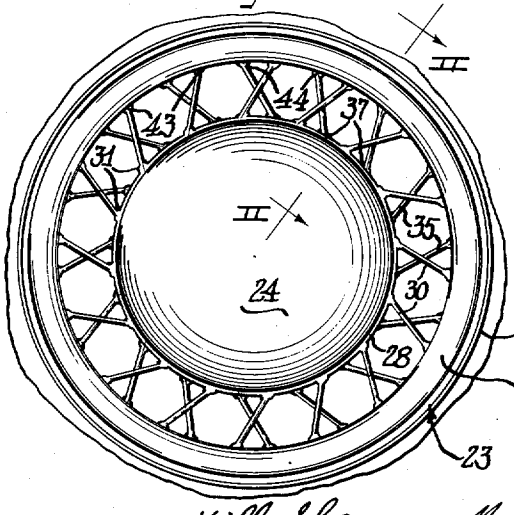


Fig. 1



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March 27, 1962 G. A. LYON Re. 25,144

WHEEL COVER

Original Filed Nov. 10, 1952 3 Sheets-Sheet 2

Fig. 4

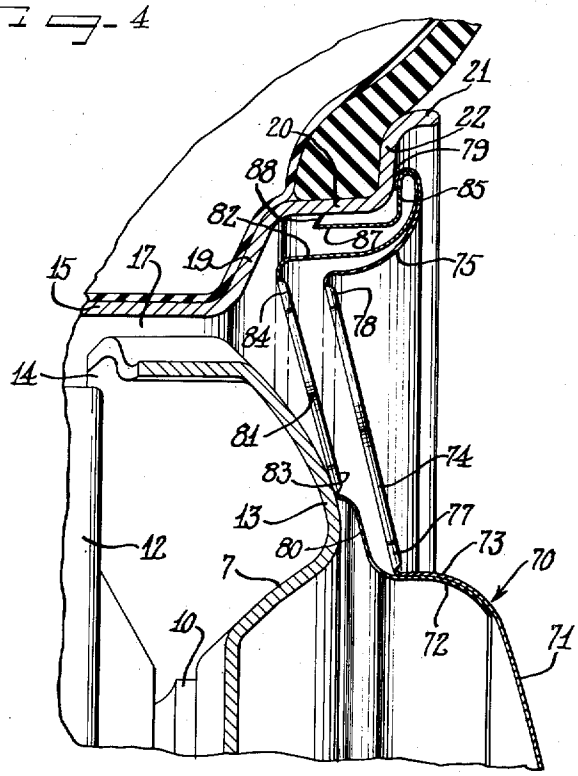
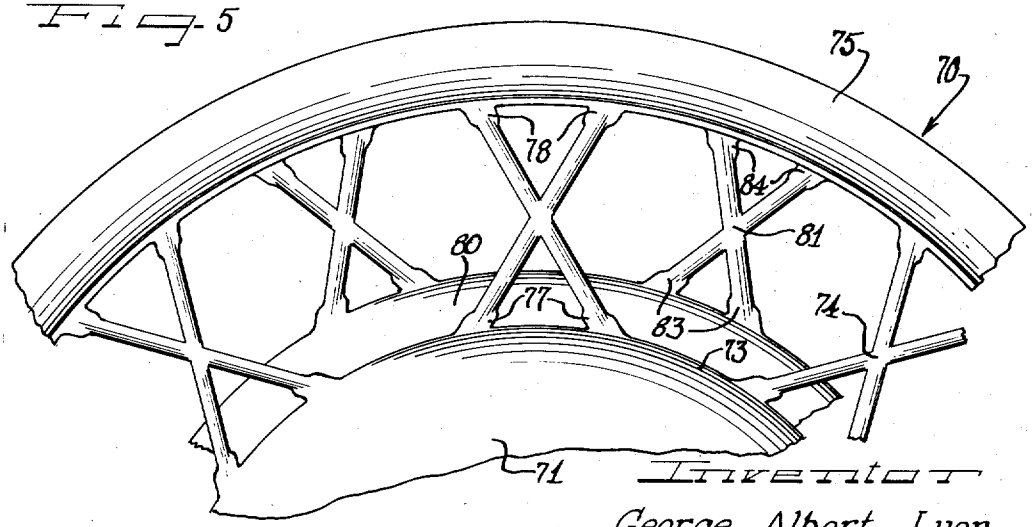


Fig. 5



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Original Filed Nov. 10, 1952 3 Sheets-Sheet 3

Fig. 6

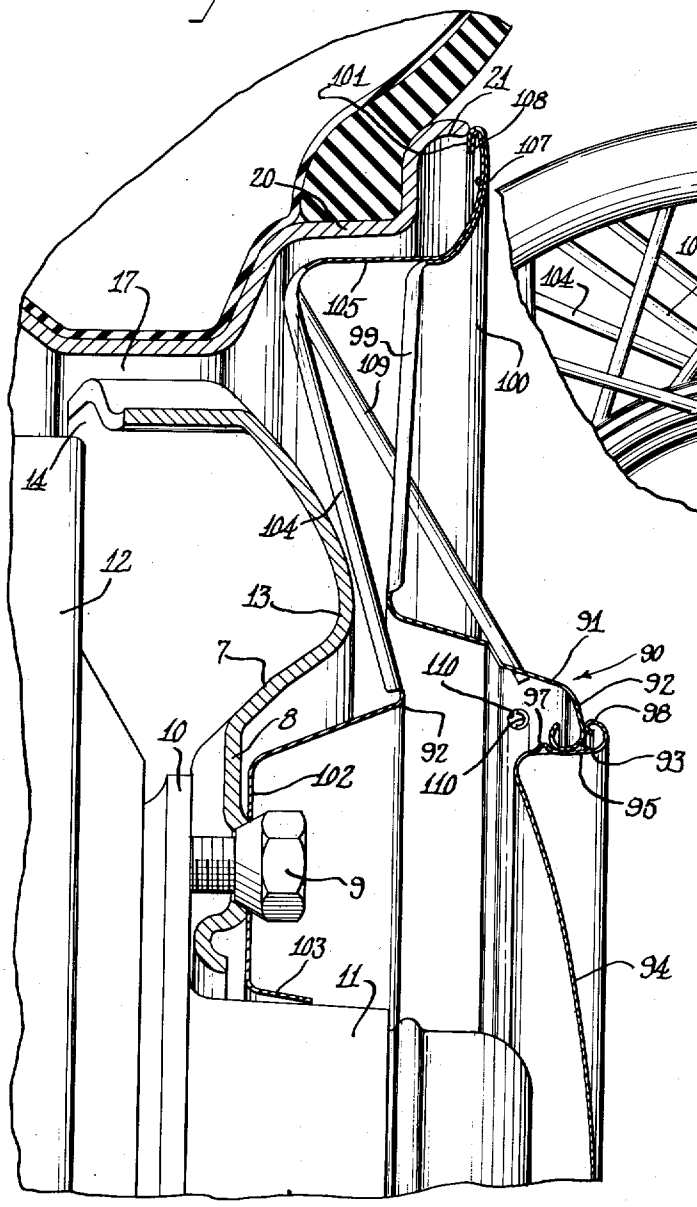
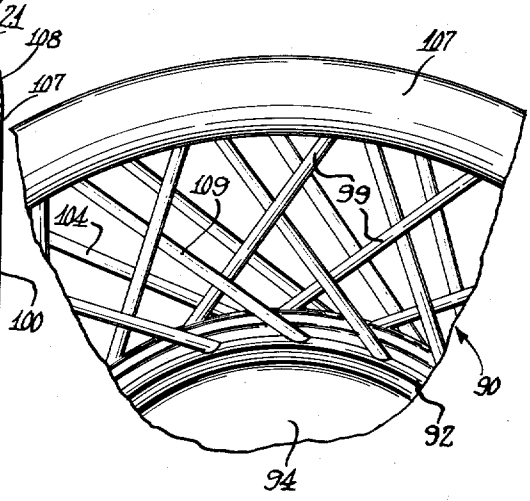


Fig. 7



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25,144
WHEEL COVER

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Original No. 2,713,516, dated July 19, 1955, Ser. No. 319,637, Nov. 10, 1952. Application for reissue Aug. 30, 1961, Ser. No. 136,974

26 Claims. (Cl. 301—37)

Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates the additions made by reissue.

The present invention relates to improvements in wheel structures and more particularly concerns the ornamental and protective covering of the outer side of vehicle wheels.

An important object of the present invention is to provide a vehicle wheel of a non-wire-spoke type having on the outerside thereof means affording the appearance of the wheel being a wire-spoke type of wheel.

Another object of the invention is to provide a cover for disposition at the outer side of a vehicle wheel of non-wire-spoke type and affording simulation of a wire-spoke wheel structure.

Still another object of the invention is to provide a wire wheel simulating wheel cover of simple and economical construction.

A still further object is to provide improvements in vehicle wheel covers generally.

Other objects, features and advantages of the present invention will be readily apparent from the following detailed description of certain preferred embodiments thereof taken in conjunction with the accompanying drawings in which:

FIGURE 1 is a side elevational view of a vehicle wheel structure embodying features of the invention;

FIGURE 2 is an enlarged fragmentary radial sectional view taken substantially on the line II—II of FIGURE 1;

FIGURE 3 is a radial sectional view similar to FIGURE 2 but showing a modified form of the wheel cover;

FIGURE 4 is a radial sectional view similar to FIGURES 2 and 3 but showing a further modification of the cover;

FIGURE 5 is a fragmentary outer side elevational view of the wheel cover of FIGURE 4;

FIGURE 6 is a radial sectional view similar to FIGURE 3 but showing still another modification; and

FIGURE 7 is a fragmentary front face elevational view of the cover of FIGURE 6.

A wheel with which the present invention may be used may be of the disk spider type comprising a disk spider body **7** (FIGURES 2, 3, 4 and 6) having a central dished and apertured bolt-on flange **8** adapted to be secured by bolts **9** to a flange member **10** on a vehicle axle hub **11** and carrying a brake drum **12**. An intermediate axially outwardly projecting annular nose bulge **13** on the wheel body surrounds the bolt-on flange and terminates in a peripheral generally axially rearwardly extending marginal attachment flange **14** which is secured in suitable manner to a base flange **15** of a multi-flanged tire rim. At suitable intervals such as four peripherally spaced intervals, the attachment flange **14** is inset to provide air circulation openings **17** through the wheel.

The tire rim is adapted to support a pneumatic tire and tube assembly **18**. For this purpose, the tire rim includes an outer side flange **19** extending generally radially outwardly from the outer margin of the base flange **15** and merging with a generally axially and slightly radially outwardly sloping intermediate flange **20**. The latter flange merges with a terminal flange **21** having a generally radially outwardly extending portion **22**.

As shown in FIGURES 1 and 2, the outer side of the wheel has mounted thereon a protective and ornamental wheel cover **23** which is preferably constructed and arranged to afford for the outer side of the wheel general simulation of wire spoke structure appearing as though connecting the wheel body **7** with the tire rim. To this end, the cover **23** comprises a pair of cover plates **24** and **25** each of which is provided with simulated wire spoke structure similarly arranged but complementary to the companion spoke structure and coordinated in assembly to afford the visual effect from the outer side of the cover of two series of tire rim supporting, peripherally angled, crossing spokes extending between the wheel body and the tire rim.

The outer of the cover members **24** preferably comprises a disk of sheet material such as stainless steel or brass or other appropriate sheet material of a diameter to substantially cover the wheel body **7** and the tire rim. The central portion of the cover plate **24** is preferably in the form of a crowned hub-cap simulating circular shape of a diameter to overlie the central bolt-on flange portion **8** of the wheel body and with its periphery overlying the nose bulge **13** of the wheel body. At the periphery of the hub-cap crown portion of the cover member **24** is provided a generally axially and radially inwardly directed flange **27** merging with a generally radially outwardly and preferably slightly axially outwardly angled annular flange **28** and defining therewith a generally radially inwardly underturned reinforcing rib **29**.

The flange **28** is narrow and lies opposite the peak of the nose bulge **13** of the wheel body and has extending generally radially and axially outwardly therefrom integrally in one piece therewith a uniform series of peripherally spaced and angled spoke elements **30**. Each of the spoke elements **30** is preferably transversely contoured to present a rounded generally wire-spoke simulating outer face. While the spoke elements **30** may be inwardly hollow, they may, of course, be full round, as preferred. At their juncture with the flange **28**, the spoke elements **30** are preferably provided with widened portions generally simulative of attachment bosses **31** on a wheel body. Material between the spokes is sheared away to provide substantial openings through the cover plate **24**.

The spoke elements **30** extend outwardly over the radially outer portion of the wheel body **7** and beyond the juncture of the wheel body with the tire rim and in the present instance with their outer ends overlying the side flange **19** of the tire rim and merging integrally in one piece with an annular outer marginal portion **32** of the outer cover member **24**. For rigidity the cover portion **32** is contoured angularly, as, for example, on a concave-convex formation and has an underturned marginal extremity flange **33** which in assembly with the wheel is adapted to lie against the terminal flange portion **22** of the tire rim.

Herein the inner cover member **25** not only cooperates with the outer cover member **24** to afford complementary spoke pattern but also provides means for attaching the cover to the wheel. To this end, the inner cover member **25** is in the form of a plate made from appropriate sheet material such as stainless steel or brass or other preferred material and may be constructed complementary as a full disk, or for lighter weight construction and economy as an annular plate disposed in interconnected relation with the spoke-carrying portion of the outer cover member **24**. A flange or sleeve portion **34** of the inner cover member is secured in internested retaining complementary engagement with the inner side of the rib **29** of the outer cover member. From the inner portion of the inner cover member **25** extends a series of individual spoke elements **35** formed integrally

in one piece therewith, angling peripherally in crossing relation to the spoke elements **30** and preferably directed generally radially outwardly and axially inwardly in diverging relation to the adjacent inner ends of the spoke elements **30**. At their inner end junctures, the spoke elements **35** are preferably formed with lateral boss-like enlargements **37** simulating attachment bosses of a wheel body.

The spoke elements **35** extend preferably to approximately the same distance radially outwardly as the spoke elements **30** and in assembly with the wheel have their outer ends adjacent to but spaced from the side flange **19** of the tire rim and merging integrally in one piece with a generally axially outwardly extending flange portion **38** of the inner cover member. The flange portion **38** is of smaller diameter than the intermediate flange **20** of the tire rim so as to afford a substantial annular space therebetween, and merges with a generally radially outwardly extending flange portion **39** generally complementary to and nested behind the marginal portion **32** of the outer cover member. An underturned generally radially inwardly extending flange portion **40** extends from the flange portion **39** and is retainingly engaged by the underturned flange **33** of the outer cover member for holding the cover members assembled at the outer margin of the cover.

For retaining the cover on the wheel, the underturned flange **40** is equipped with generally axially inwardly extending and radially flexible retaining fingers **41** extending into the gap between the intermediate flange **20** and the cover flange **38** and having short and stiff retaining terminals **42** angled generally radially and axially outwardly and gripping the intermediate flange **20** in retaining relation. The arrangement is such that the cover can be applied to the wheel by generally centering the same relative to the wheel and pressing the same axially inwardly so that the retaining terminals **42**, which normally extend to a greater diameter than the intermediate flange **20**, will retainingly grip the retaining flange under substantial tension of the fingers **41**. Removal of the cover is easily effected by applying a pry-off tool to the multi-layer reinforcing outer marginal bead afforded by the internested outer marginal portions of the two cover members and prying the cover free by leverage against the terminal flange **21**.

It will be understood that the spoke elements **35** may be structurally similar to the spoke elements **30**, that is of outwardly rounded shape generally simulative of a wire spoke structure for a wheel, and they may be either hollow inwardly or full round as preferred. The spoke elements **30** may be provided with attachment boss simulating outer end enlargements **43** while the spoke elements **35** may be provided with similar attachment boss simulating enlargements **44** at their outer ends to afford the illusion of attachment of the spokes to the tire rim. Any preferred finish may be afforded the outer side of the outer cover member **24** and the spokes **30** and **35**.

In the assembly of the cover members **24** and **25**, the spoke elements **30** and **35** are preferably disposed in crossing relation as appears in FIGURE 1. It will be understood, of course, that as many or as few of the spoke elements **30** and **35** may be provided as desired.

In assembly with the wheel the inner portion of the inner cover member **25** preferably bears against the nose bulge **13** of the wheel body and thereby closes the hub chamber defined between the wheel body and the crown portion of the cover from entry of dirt from the outside. However, the substantial spaces between the spokes in the annular intermediate area of the cover lying opposite the wheel openings **17** enable free circulation of air through the cover and through the wheel openings **17** for brake drum cooling purposes.

In the modification of FIGURE 3, a cover **45** is provided that is adapted for attachment to the wheel by means of the attachment bolts **9**. To this end, an outer cover member **47** is supported by an inner cover member **48**. The outer cover member **47** is in the form of an annulus having an apertured central portion provided with an inner marginal underturned reinforcing bead **49** arranged to receive and retain a central hub cap closure **50** provided with an axially inwardly directed attachment flange **51** having radially outwardly directed retaining bumps **52** engageable in snap-on pry-off relation behind the bead **49** to retain the hub cap shouldered against the outer side of the inner margin of the cover member **47** in snap-on pry-off relation. It will be observed that the size of the opening in the cover member **47** is large enough to enable access to the attachment bolts **9**.

The inner portion of the cover member **47** extends generally axially inwardly toward the nose bulge **13** of the wheel body and has a generally radially outwardly extending flange **53** from which angle generally peripherally and radially outwardly and axially outwardly a series of spoke elements **54** integral in one piece with the flange. At their juncture with the flange **53** the spoke elements **54** may be provided with attachment boss enlargements **55**. At their outer ends the spoke elements **54** merge integrally in one piece with an annular outer marginal portion **57** of the cover member **47**. At their outer end junctures the spoke elements **54** may be provided with attachment boss simulating enlargements **58**.

For rigidity the outer cover portion **57** is preferably angularly contoured in cross-section, such, for example, as concave-convex and it extends into overlying relation to the tire rim terminal flange portion **22**. At its outer margin the cover portion **57** is turned under to provide a reinforcing and finishing bead **59** which is retainingly engaged about a complementary outer marginal bead **60** of an outer annular cover portion **61** of the inner cover member **48** disposed in complementary nested relation at the inner side of the cover portion **57**.

Extending generally axially inwardly from the cover portion **57**, the outer portion of the cover member **48** has a flange **62** that is spaced radially inwardly from the intermediate flange **20** of the tire rim and merges at its axially inner margin with a series of spoke elements **63** having their outer ends adjacent to the side flange **19** of the tire rim and angling generally radially inwardly and axially inwardly and peripherally behind the spoke elements **54** toward juncture integrally in one piece with the inner portion of the cover member **48** which lies opposite the wheel bulge **13**. It will be observed that the flange portion **53** of the outer cover member preferably engages against the inner cover member **48** adjacent juncture of the spoke elements **63** with the cover member. At their inner ends the spoke elements **63** have attachment boss simulating enlargements **64** while at their outer ends these spoke elements have attachment boss simulating enlargements **65**.

The inner cover member **48** is preferably dished generally complementary to the attachment flange portion of the wheel body and has an attachment flange **66** which is adapted to be engaged by the attachment bolts **9** for attaching the cover to the wheel at the bolt-on flange **8**. An inner marginal portion **67** of the inner cover member may engage in centering relation with the wheel hub **11**.

It will be observed that the spoke elements **54** and **63** while they lie in axially spaced relation similarly as the spoke elements **30** and **35** are relatively disposed, and also in diverging relation from the central portion of the cover assembly, are spaced axially outwardly from the nose bulge **13** at their inner ends. However, the engagement of the cover members **47** and **48** adjacent the inner ends of the spoke elements, and the engagement of the bolt-on flange **66** of the cover with the bolt-on flange of the wheel substantially closes the hub chamber provided by the cover against entry of dirt into the chamber.

The spoke elements **54** and **63** may be constructed as

rearwardly hollow, outwardly rounded elements in cross section or they may be formed as hollow tubular fully or substantially closed structures. In any event the spoke elements **54** and **63** are preferably disposed in crossing relation peripherally considered and afford the appearance of a wheel body supporting a tire rim. The substantial openings in the intermediate spoke portion of the cover, lying opposite the wheel openings **17** affords free ventilation through the cover and the wheel.

In the modification of FIGS. 4 and 5, a cover **70** is provided which may in general be similar to the cover **23** except that spoke elements are provided of generally X-shape rather than individual spoke elements. In the arrangement shown, an outer cover member **71** comprising a disk substantially covering the outer side of the wheel body **7** and the tire rim is disposed in nested supported relation to an inner cover member **72**. To this end the outer cover member **71** provides a central crown, hub cap simulating portion having a peripheral generally axially inwardly extending flange **73** which is in complementary nested relation to the inner sleeve-like portion of the inner cover member **72** and has extending generally radially outwardly and axially inwardly therefrom a uniform series of generally X-shaped spoke members or elements **74** each of which has a pair of legs attached integrally in one piece with the flange **73** and a pair of diverging legs attached integrally in one piece with an outer annular cover portion **75**. Each of the spoke members **74** has the legs disposed in integral one-piece relationship with spaces between the respective inner and outer leg portions of the spoke elements and with the area between the spoke elements **74** cut away to provide substantial free spaces. At their inner legs the spoke elements are preferably provided with juncture boss enlargements **77** while the outer ends of the outer legs at juncture with the cover portion **75** are provided with attachment boss simulating enlargements **78**. The outer annular cover portion **75** is preferably of substantially rigid angular cross sections such as concave convex and has an underturned reinforcing and finishing bead flange **79**.

Inner cover member **72** not only provides a series of spoke elements generally complementary to and cooperatively related to the spoke elements **74** of the outer cover member **71**, but also provides means for attaching the cover to the wheel. To this end, the inner cover member **72** from its attachment nested engagement with the inner cover member **71** extends generally radially outwardly and axially inwardly to provide a flange **80** which underlies the inner legs of the spoke elements **74** and has extending therefrom X-shaped spoke elements **81** which are preferably shorter than the spoke elements **74** and are disposed, as best seen in FIG. 5, centered behind or axially spaced inwardly from the series of spoke elements **74** but exposed symmetrically in the spaces between the spoke elements **74**. The spoke elements **81** extend preferably radially outwardly and axially inwardly and have the outer ends of the outer legs thereof integrally joined to a generally axially outwardly extending annular flange **82**. The X-shaped spoke elements **81** have at their inner juncture ends attachment boss simulating enlargements **83** while at their outer ends they have attachment boss simulating enlargements **84**.

The outer flange member **82** extends at its outer margin generally radially outwardly in nested interengagement with the inner side of the outer portion **75** of the outer cover member, and an underturned marginal flange **85** is engaged in retaining assembled relation by the underturned bead flange **79**. The flange **85** extends radially inwardly to clear the juncture between the intermediate flange **20** and the terminal flange portion **22** and has extending generally axially inwardly therefrom retaining resilient spring fingers **87** having axially and radially outwardly angled short and stiff retaining terminals **88** grippingly engaging the inner side of the intermediate flange **20** for retaining the cover on the wheel similarly as explained in connection with the retaining fingers **41** and their retaining terminals **42** of the cover **23**.

The cover **70** thus provides a substantially rigid cover structure which is adapted to be applied by pressing the same axially inwardly onto the wheel and which may be pried free from the wheel by inserting a pry-off tool between the outer beaded peripheral multi-flange structure of the cover and the terminal flange of the tire rim. By having the outer marginal portion of the flange **80** of the inner cover member engaging against the nose bulge **13** of the wheel body the hub chamber inside the cover is substantially closed against entry of dirt. Free air circulation through the substantial spaces between the spokes of the cover and through the wheel openings **17** is permitted.

The modification of FIGURES 6 and 7 is somewhat like that of FIGURE 3 except that the cover **90** is provided with three series of spokes in which one of the series of spokes is provided integral with an outer cover plate **91** while both of the remaining series of spokes are provided on an inner cover plate **92**.

The outer cover plate **91** is formed with an annular inner portion **92** of angular cross section having a central aperture defined by an inwardly curled reinforcing and finishing bead **93**. The opening thus provided is of sufficient size to gain free access to the cover retaining bolts **9**. For closing the central opening, a hub cap **94** is provided having an axial flange **95** dimensioned to fit within the diameter of the bead **93** and having retaining bumps **97** at spaced intervals to engage in snap-on pry-off relation with the bead **93**, a turned outer marginal underturned flange **98** bearing against the outer side of the cover portion **92**.

The inner cover portion **92** angles generally radially outwardly and axially inwardly and has an intermediate and generally radially outwardly extending and preferably slightly axially outwardly directed intermediate portion formed into a series of uniformly spaced spokes **99** formed in one piece therewith and directed angularly peripherally toward the right as viewed in FIGURE 7. At their inner ends, the spokes are connected integrally to the inner cover portion **92**, while at their outer ends, the spokes are connected integrally to an annular generally convex-concave outer portion **100** on which is preferably of an extent to overlie the tire rim terminal flange **21** and has an underturned flange **101** for reinforcement and finishing and preferably adapted to lie against the edge of the terminal flange **21**.

The inner plate **92** is preferably provided with a central depressed bolt-on flange **102** engageable by the attachment bolts **9** for securing the flange **102** to the bolt-on flange **8** of the wheel body. A central centering flange **103** is adapted to engage the hub **11**.

The inner portion of the cover member **92** is connected integrally in one piece by means of spokes **104** with an outer annular cover portion **105**. This annular portion extends generally axially and on a diameter less than the diameter of the intermediate flange **20** of the tire rim and merges with an outer concave-convex portion **107** extending generally radially outwardly and nested within the outer cover portion **100** and having an underturned marginal rigidifying flange **108** which is nested within and thereby secured in position with relation to the outer cover plate by the underturned flange **101**. In addition to the spokes **104**, the inner cover plate **92** has extending integrally in one piece from the outer cover portion **105** and alternating with the spokes **104**, a series of spokes **109** which, in assembly, extend through the spaces between the spokes **99** and have end lugs **110** which are assembled within apertures **111** in the side of the cover member **92** adjacent to the outer portion of the inner cover member. It will be observed from FIGURE 7 that the spokes **104** and **109** are angled in crossing relation to the spokes **99**. The spokes **99** and **109** connect the cover portion **92** rigidly to the cover portions

101 and 105, while the spokes 104 provide a flexible connection of the inner bolt-on flange portion 102 of the cover with respect to the outer cover portion 105 so that when the cover is applied to the wheel and the bolts 9 are tightened, the inner cover plate will flex at the joints with the spokes 104 to hold the cover under tension against the tire rim at the underturned flange 101.

It will be observed that the spoke elements 99, 104 and 109 are spaced apart substantially in each respective series of spokes. The spoke elements are individually of rounded stiff section which may be either partially closed or wholly closed, that is, semi-cylindrical or cylindrical or some variant intermediate cylindrical and semi-cylindrical.

It will also be observed that the spokes provide substantial space therebetween through which the inner portions of the several spokes are visible and especially the rear spokes 104 are visible between and through the outer series of spokes, and substantial air circulation opening is provided through the cover for circulation of air through the cover and the wheel openings 17.

It will be understood that modifications and variations may be effected without departing from the scope of the novel concepts of the present invention.

I claim as my invention:

1. In a wheel structure including a tire rim and a wheel body, a cover for the outer side of the wheel comprising a pair of separately formed cover members comprising an axially outer cover member and an axially inner cover member, the outer cover member being supported by the inner cover member, said inner cover member having means engageable with one of the wheel members for attachment of the cover to the wheel, both of said cover members having intermediate axially opposite portions thereof provided with spoke elements with the spoke elements of the inner cover member disposed behind the spoke elements of the outer cover member and visible through openings between the spoke elements of the outer cover member.

2. In a wheel structure including a tire rim and a wheel body, a cover for the outer side of the wheel comprising a pair of cover members comprising an axially outer cover member and an axially inner cover member, the outer cover member being supported by the inner cover member, said inner cover member having means engageable with one of the wheel members for attachment of the cover to the wheel, both of said cover members having intermediate axially opposite portions thereof provided with spoke elements with the spoke elements of the inner cover member disposed behind the spoke elements of the outer cover member and visible through openings between the spoke elements of the outer cover member, the retaining means on the inner cover member comprising retaining spring fingers formed separately thereon from said spoke elements.

3. In a wheel structure including a tire rim and a wheel body, a cover for the outer side of the wheel comprising a pair of cover members comprising an outer cover member, an inner cover member, the outer cover member being supported by the inner cover member, said inner cover member having means engageable with one of the wheel members for attachment of the cover to the wheel, both of said cover members having intermediate opposite portions thereof provided with spoke elements with the spoke elements of the inner cover member disposed behind the spoke elements of the outer cover member and visible through openings between the spoke elements of the outer cover member, the retaining means on the inner cover member comprising a bolt-on flange engaging the wheel body member.

4. In a cover for disposition at the outer side of a vehicle wheel, an axially outer cover member having a radially inner portion and a radially outer portion spaced radially apart and integrally joined in one piece by a series of spoke-like elements, and an axially inner

cover member having a radially inner portion and a radially outer portion spaced apart and joined by integral spoke-like elements, said cover members having portions thereof joined together with the spoke elements of the inner cover member disposed behind and visible through spaces between the outer cover member spoke elements.

5. In a cover for disposition at the outer side of a vehicle wheel comprising, in combination, a pair of separately formed plates one of which is disposed at the axially inner side of the other of said plates, said plates being joined together, each of said plates having an intermediate area thereof stamped to provide spoke simulating structure, the outer cover plate having substantial spaces between the spoke structure so that the spoke structure of the inner cover plate is visible through the spaces.

6. In a cover structure for disposition at the outer side of a vehicle wheel, axially inner and axially outer cover plates secured together at their outer margins, the cover plates having intermediate spoke simulating annular areas spaced axially apart, the spoke simulating area of the outer cover plate having substantial spaces through which the spoke simulating area of the inner cover plate is visible.

7. In a cover structure for disposition at the outer side of a vehicle wheel, axially inner and outer cover plates secured together at their outer margins, the cover plates having intermediate spoke simulating annular areas spaced axially apart, the spoke simulating area of the outer cover plate having substantial spaces through which the spoke simulating area of the inner cover plate is visible, said cover plates also having radially inner portions thereof secured together and the axially inner of said cover plates having at its outer margin cover retaining structure engageable with a vehicle wheel for retaining the cover in place on a wheel to which it may be applied.

8. In a cover for disposition at the outer side of a vehicle wheel, an axially outer cover plate, an axially inner cover plate, the outer margins of said cover plates being interconnected and provided with a series of generally axially inward extending retaining fingers for retaining engagement with a tire rim, said cover plates having opposed annular areas provided with spoke structure affording the appearance from the outer side of the cover of a wheel body supporting a rim portion through the medium of spokes therebetween.

9. In a cover for disposition at the outer side of a vehicle wheel, a cover member having a radially inner portion from which are directed integrally in one piece generally radially outwardly extending spoke elements joined at their outer ends to a radially outer integral annular cover portion in one piece therewith, an axially inner cover member having inner and outer radially spaced portions joined intergrally in one piece by means of spoke elements, the radially outer portions of each of said cover members being secured together.

10. In a cover for disposition at the outer side of a vehicle wheel, a cover member having a radially inner portion from which are directed integrally in one piece generally radially outwardly extending spoke elements joined at their outer ends to a radially outer integral annular cover portion in one place therewith, an axially inner cover member having radially inner and outer radially spaced portions joined integrally in one piece by means of spoke elements, said cover members being connected together with the spoke elements in complementary relation.

11. In a cover for disposition at the outer side of a vehicle wheel, a pair of axially inner and outer coaxially arranged cover plates, each of said cover plates having stamped therein an annular series of spoke elements, the spoke elements being disposed in axially opposed relation and with the spoke elements of one of the plates angled in one peripheral direction and the spoke elements of the other of the plates angled in the opposite peripheral direction and disposed in crossing

relation with the spoke elements of one of the plates behind the spoke elements of the other of said plates.

12. In a cover for disposition at the outer side of a vehicle wheel, a pair of cover plates interengaged in axially opposed concentric relation, each of said cover plates having an annular area stamped to provide spoke elements integrally connecting radially inner and radially outer portions of the respective cover plate and with the annular spoke intermediate areas disposed in opposing relation, the spoke elements of the inner plate being of generally X-shape and with the spoke elements of the inner plate disposed intermediate the spoke elements of the outer plate.

13. In a wheel structure including a tire rim and a wheel body, the tire rim and wheel body having at juncture thereof wheel openings, a cover for the outer side of the wheel comprising a pair of axially opposed cover plates having radially inner portions in engagement and radially outer portions in engagement, the respective radially inner and radially outer portions of the plates having integrally in one piece connecting spoke elements providing a spoke pattern opposite the wheel openings for circulation of air through the wheel and the cover, the inner of said plates having means for attachment to the wheel and engaging the wheel body to close off against entry of dirt a hub chamber defined by the cover and the wheel body.

14. In a wheel structure including a tire rim and a wheel body, the tire rim and wheel body having at juncture thereof wheel openings, a cover for the outer side of the wheel comprising a pair of cover plates having radially inner portions in engagement and radially outer portions in engagement, the respective radially inner and radially outer portions of the plates having integrally in one piece connecting spoke elements providing a spoke pattern opposite the wheel openings for circulation of air through the wheel and the cover, the inner of said plates having means for attachment to the wheel and engaging the wheel body to close off against entry of dirt a hub chamber defined by the cover and the wheel body, said attachment means comprising a bolt-on flange on the inner of said cover plates and the outer of said cover plates having a central opening carrying a hub cap in snap-on pry-off relation for closing the opening.

15. In a cover for disposition at the outer side of a vehicle wheel, an outer cover plate and an inner cover plate, said cover plates having annular radially outer portions internested and interlocked to connect the plates together, the outer cover plate having a circular portion spaced radially inwardly from the radially outer annular portion thereof, a series of generally radially outwardly and peripherally angled spokes connecting said inner and outer portions of the outer cover member integrally in one piece, said inner cover member having an inner circular portion, a series of spoke members connecting said inner cover portion of the inner cover member with the outer annular portion of the inner cover member integrally in one piece, and a third series of spokes integrally connected at their outer ends to said outer portion of the inner cover member and angled through the spokes of the outer cover member and having the distal ends thereof connected to said inner portion of the outer cover member.

16. As an article of manufacture, an ornamental wheel cover for disposition over the hub and rim of a wheel comprising a front section of relatively thin sheet material formed with a dome-like central portion with spoke-like elements emanating therefrom and terminating in a first annulus adapted to be disposed over the rim of the wheel, and a rear section coaxially disposed with respect to the front section and being attached thereto, the rear section having spoke-like elements emanating therefrom and terminating in a second annulus nested in said first annulus, said secod annulus having a plurality of spring fingers adapted to make a biting engagement with the rim of the wheel when the wheel cover is pressed thereon.

17. In a wheel assembly including a wheel having a hub portion and a drop center rim, an ornamental wheel cover disposed over the wheel and a substantial portion of the side flanges of the rim comprising a pair of coaxial sections joined together, the forward section having a central portion for concealing the wheel hub portion, an annulus overlapping the side flanges of the rim so as to substantially conceal the latter, and a plurality of spoke-like elements joining said central portion and said annulus, the rear section having a sleeve and an annulus joined respectively to the central portion and annulus of the forward section, and a plurality of spoke-like elements joining said sleeve and second named annulus, and means for securing the wheel cover to a wheel.

18. As an article of manufacture, an ornamental wheel cover for disposition over the hub and rim of a wheel comprising a pair of coaxial sections joined together, the forward section having a central portion for concealing the wheel hub, an annulus for concealing part of the wheel rim and a plurality of spoke-like elements joining said central portion and said annulus, the rear section having a sleeve and an annulus joined respectively to the central portion and annulus of the forward section and a plurality of spoke-like elements joining said sleeve and second named annulus, and means for securing the wheel cover to a wheel.

19. As an article of manufacture, an ornamental wheel cover for disposition over the hub and rim of a wheel comprising a front section of relatively thin sheet material formed with a dome-like central portion with spoke-like elements emanating therefrom and terminating in a first annulus adapted to be disposed over the rim of said wheel, and a rear section coaxially disposed with respect to the front section and being attached thereto, the rear section having spoke-like elements emanating therefrom and terminating in a second annulus nested in said first annulus, the points of emanation of the first and second named spoke-like elements being axially spaced.

20. As an article of manufacture, an ornamental wheel cover for disposition over the hub and rim of a wheel comprising a front section of relatively thin sheet material formed with a dome-like central portion with spoke-like elements emanating therefrom and terminating in a first annulus adapted to be disposed over the rim of the wheel, and a rear section coaxially disposed with respect to the front section and being attached thereto, the rear section having spoke-like elements emanating therefrom and terminating in a second annulus nested in said first annulus, said first and second named spoke-like elements being inclined in clockwise and counterclockwise directions.

21. As an article of manufacture, an ornamental wheel cover for disposition over the hub and rim of a wheel comprising a front section of relatively thin sheet material formed with a dome-like central portion with spoke-like elements emanating therefrom and terminating in a first annulus adapted to be disposed over the rim of the wheel, and a rear section coaxially disposed with respect to the front section and being attached thereto, the rear section having spoke-like elements emanating therefrom and terminating in a second annulus nested in said first annulus, said first and second named spoke-like elements being inclined in opposite radial directions and being spaced axially at their points of emanation.

22. As an article of manufacture, an ornamental wheel cover for disposition over the hub and rim of a wheel comprising a front section of relatively thin sheet material formed with a dome-like central portion with spoke-like elements emanating therefrom and terminating in a first annulus adapted to be disposed over the rim of the wheel, and a rear section coaxially disposed with respect to the front section and being attached thereto, the rear section having spoke-like elements emanating therefrom

and terminating in a second annulus nested in said first annulus, said spoke-like elements being formed from the sheet material so as to have a U-shaped cross section with the open end of the section being directed rearwardly.

23. In a cover for disposition at the outer side of a vehicle wheel, an axially outer cover plate, an axially inner cover plate, the outer margins of said cover plates being interconnected and provided with a series of generally axially inward extending retaining fingers for retaining engagement with a tire rim, said cover plates having opposed annular areas provided with spoke structure affording the appearance from the outer side of the cover of a wheel body supporting a rim portion through the medium of spokes therebetween, the spoke structure comprising spokes in one plate crisscrossing and being interlaced with the spokes on the other plate.

24. In a cover for disposition at the outer side of a vehicle wheel, an axially outer cover plate, an axially inner cover plate, the outer margins of said cover plates being interconnected and provided with a series of generally axially inward extending retaining fingers for retaining engagement with a tire rim, said cover plates having opposed annular areas provided with spoke structure affording the appearance from the outer side of the cover of a wheel body supporting a rim portion through the medium of spokes therebetween, the spoke structure of said plates being generally of an X-like arrangement and the outer margin of the cover carrying flexible cover retaining means for engagement with the wheel.

25. In a cover for disposition at the outer side of a vehicle wheel, an axially outer cover plate, an axially inner cover plate, the outer margins of said cover plates being interconnected and provided with a series of generally axially inward extending retaining fingers for retaining engagement with a tire rim, said cover plates having opposed annular areas provided with spoke structure affording the appearance from the outer side of the cover of a wheel body supporting a rim portion through the medium of spokes therebetween, said plates being interconnected adjacent the center of the cover.

26. In a cover for disposition at the outer side of a vehicle wheel, an axially outer cover plate, an axially inner cover plate, the outer margins of said cover plates being interconnected and provided with a series of generally axially inward extending retaining fingers for retaining engagement with a tire rim, said cover plates having opposed annular areas provided with spoke structure affording the appearance from the outer side of the cover of a wheel body supporting a rim portion through the medium of spokes therebetween, one of said plates in addition to having said outer portion also having a central portion integral with its spokes and the other plate having its spoke area composed of spokes extending through the spaces between the spokes of said one or first mentioned plate in crisscross manner and interconnected with said central portion of said one plate.

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