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(12) **United States Design Patent**
Chen et al.

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- (54) **VEHICLE LOWER GRILLE**
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- (52) **U.S. Cl.**
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- (58) **Field of Classification Search**
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CPC B60R 19/52; B60K 11/08; B62D 25/08; B62B 9/16
See application file for complete search history.

- D685,690 S * 7/2013 Svensson D12/163
- D712,329 S * 9/2014 Borkert D12/209
- D716,706 S 11/2014 Thole et al.
- D718,673 S 12/2014 Thole et al.
- D720,262 S 12/2014 Won
- D720,263 S 12/2014 Pevovar et al.
- D721,019 S 1/2015 Pevovar et al.
- D726,601 S 4/2015 Duff et al.
- D727,222 S 4/2015 Jamieson
- D730,783 S 6/2015 Henriques et al.
- D738,797 S 9/2015 Kavaja
- D740,184 S * 10/2015 Blanski D12/163
- D742,796 S 11/2015 Loeb
- D746,726 S 1/2016 Smith et al.
- D746,727 S 1/2016 Smith et al.
- D746,728 S 1/2016 Smith et al.
- D746,729 S 1/2016 Boniface et al.
- D746,730 S 1/2016 Kim et al.
- D754,571 S 4/2016 Boniface et al.
- D754,572 S 4/2016 McMahan et al.
- D755,088 S 5/2016 McMahan et al.

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Primary Examiner — Melody N Brown

(57) **CLAIM**

The ornamental design for a vehicle lower grille, as shown and described.

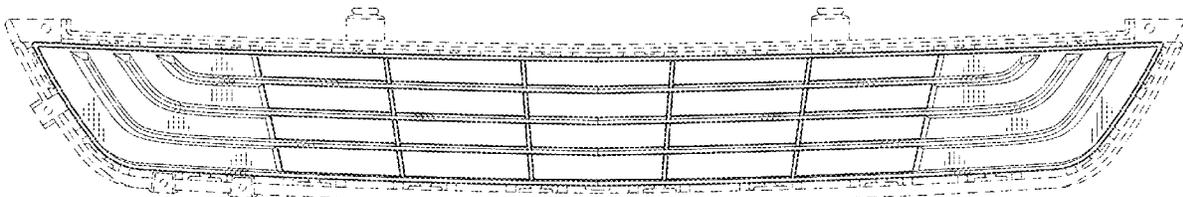
DESCRIPTION

FIG. 1 is a front and left side perspective view of a vehicle lower grille showing our new design;
 FIG. 2 is a front elevational view thereof;
 FIG. 3 is a left side elevational view thereof;
 FIG. 4 is a right side elevational view thereof;
 FIG. 5 is a top plan view thereof;
 FIG. 6 is a rear elevational view thereof; and,
 FIG. 7 is a bottom plan view thereof.
 The portions of the lower grille shown in broken lines are for environmental and illustrative purposes and form no part of the claimed design.

1 Claim, 7 Drawing Sheets

(56) **References Cited**
U.S. PATENT DOCUMENTS

- D473,500 S * 4/2003 Okumoto D12/169
- D502,675 S * 3/2005 Ichinose D12/169
- D504,366 S * 4/2005 Ishibashi D12/169
- D533,819 S * 12/2006 Hogios D12/169
- D561,072 S * 2/2008 Golden D12/169
- D561,654 S * 2/2008 Platto D12/163
- D578,443 S * 10/2008 Schiavone D12/163
- D584,196 S * 1/2009 Ebel D12/163
- D593,460 S * 6/2009 Schiavone D12/163
- D664,481 S * 7/2012 Platto D12/163
- D680,921 S * 4/2013 Jara D12/163
- D681,514 S * 5/2013 Platto D12/163
- D683,667 S * 6/2013 Platto D12/163



(56)

References Cited

U.S. PATENT DOCUMENTS

D758,927 S	*	6/2016	Messale	D12/163	D827,508 S	*	9/2018	Whitla	D12/163
D771,528 S		11/2016	Smith et al.		D827,509 S	*	9/2018	Behmer	D12/163
D771,529 S		11/2016	Thole et al.		D827,510 S		9/2018	Kim	
D771,534 S	*	11/2016	Bucher	D12/169	D827,513 S	*	9/2018	Gueler	D12/163
D771,553 S	*	11/2016	Nagase	D12/532	D830,241 S		10/2018	Kozub	
D775,003 S		12/2016	Pevovar et al.		D830,242 S		10/2018	Zipfel	
D775,554 S		1/2017	Kapitonov		D830,918 S		10/2018	Kozub	
D776,020 S		1/2017	Kapitonov		D832,146 S	*	10/2018	Metros	D12/91
D780,644 S		3/2017	Kim et al.		D835,002 S	*	12/2018	Metros	D12/91
D780,646 S	*	3/2017	Wolff	D12/163	D835,012 S		12/2018	Smith et al.	
D782,944 S		4/2017	Pevovar et al.		D836,502 S		12/2018	Koo et al.	
D784,213 S		4/2017	Karras		D836,503 S		12/2018	Koo et al.	
D786,145 S		5/2017	Kozub		D837,105 S		1/2019	Loeb	
D786,743 S		5/2017	Smith et al.		D837,700 S	*	1/2019	Gueler	D12/163
D787,988 S		5/2017	Lee		D840,285 S		2/2019	Mack et al.	
D788,656 S	*	6/2017	Svensson	D12/163	D840,286 S		2/2019	Mack et al.	
D789,840 S	*	6/2017	Curic	D12/163	D841,527 S		2/2019	Kozub et al.	
D789,841 S		6/2017	Malczewski		D841,528 S	*	2/2019	Razaghi	D12/163
D791,653 S	*	7/2017	Svensson	D12/163	D844,500 S	*	4/2019	Metros	D12/163
D792,290 S		7/2017	Smith et al.		D845,184 S		4/2019	Zipfel	
D792,813 S		7/2017	Kozub		D847,038 S		4/2019	Loeb	
D792,814 S		7/2017	Kozub		D847,041 S	*	4/2019	Blanski	D12/163
D793,290 S		8/2017	Kozub		D847,699 S		5/2019	Kozub	
D793,917 S		8/2017	Kozub		D847,700 S		5/2019	Kozub	
D793,918 S		8/2017	Kozub		D847,701 S		5/2019	Kozub	
D795,757 S		8/2017	Pevovar et al.		D847,702 S		5/2019	Zipfel	
D795,758 S		8/2017	Karras		D848,320 S		5/2019	Pinazzo et al.	
D795,759 S		8/2017	Kozub et al.		D848,908 S	*	5/2019	Krieg	D12/163
D795,760 S		8/2017	Kozub et al.		D850,331 S		6/2019	Lee et al.	
D795,762 S		8/2017	Lee		D850,987 S		6/2019	Yong et al.	
D795,763 S		8/2017	Kozub		D851,547 S		6/2019	Mack et al.	
D796,390 S		9/2017	Pevovar et al.		D851,548 S		6/2019	Mack et al.	
D797,614 S		9/2017	Lee		D851,549 S		6/2019	Mack et al.	
D799,384 S		10/2017	Kozub et al.		D851,550 S		6/2019	Mack et al.	
D799,385 S		10/2017	Kozub et al.		D851,551 S		6/2019	Mack et al.	
D799,386 S		10/2017	Kozub et al.		D851,552 S		6/2019	Mack et al.	
D802,491 S		11/2017	Mainville		D852,096 S		6/2019	Kozub	
D803,731 S		11/2017	Zipfel et al.		D852,099 S		6/2019	Loeb	
D803,732 S		11/2017	Yang		D853,903 S		7/2019	Loeb	
D805,006 S		12/2017	Nakamura		D854,977 S		7/2019	Parkinson et al.	
D805,964 S		12/2017	Whitla et al.		D855,503 S		8/2019	Blanski et al.	
D805,965 S		12/2017	Davis		D856,201 S		8/2019	Blanski et al.	
D805,966 S		12/2017	Perkins		D857,567 S	*	8/2019	Blanski	D12/163
D807,239 S		1/2018	Perkins		D857,568 S		8/2019	Lee et al.	
D807,240 S		1/2018	Perkins		D858,373 S		9/2019	Blanski et al.	
D807,241 S		1/2018	Perkins		D859,228 S		9/2019	Yong et al.	
D811,953 S		3/2018	Seol		D859,229 S		9/2019	Karras et al.	
D811,954 S		3/2018	Park		D859,230 S		9/2019	Parkinson et al.	
D812,525 S		3/2018	Lee		D859,231 S		9/2019	Wilkins et al.	
D813,730 S		3/2018	Zipfel et al.		D859,232 S		9/2019	Izard et al.	
D813,731 S		3/2018	McMahan		D859,233 S		9/2019	Izard et al.	
D813,732 S		3/2018	Whitla et al.		D863,125 S		10/2019	Whitla et al.	
D813,733 S		3/2018	Lee		D863,126 S	*	10/2019	Whitla	D12/163
D814,982 S		4/2018	Whitla et al.		D863,127 S		10/2019	Whitla et al.	
D814,983 S		4/2018	Whitla et al.		D863,128 S		10/2019	Whitla et al.	
D815,570 S	*	4/2018	McMahan	D12/163	D863,129 S		10/2019	Zipfel	
D815,993 S		4/2018	Kozub et al.		D863,130 S		10/2019	Thurber et al.	
D815,994 S		4/2018	Nakamura		D863,131 S		10/2019	Thurber et al.	
D818,884 S		5/2018	Seol		D863,132 S		10/2019	Thurber et al.	
D818,889 S		5/2018	Yang		D863,134 S		10/2019	Thurber et al.	
D818,892 S		5/2018	Lee		D863,135 S		10/2019	O'Donnell et al.	
D818,893 S		5/2018	Kim		D863,136 S		10/2019	Blanski et al.	
D819,505 S		6/2018	McMahan et al.		D863,137 S		10/2019	Kim et al.	
D819,506 S		6/2018	Han		D863,138 S		10/2019	Kim et al.	
D819,512 S	*	6/2018	Behmer	D12/163	D863,140 S		10/2019	Wilkins et al.	
D820,170 S		6/2018	Kozub et al.		D863,141 S		10/2019	Zipfel	
D821,272 S		6/2018	Han		D864,049 S		10/2019	Luke et al.	
D821,273 S		6/2018	Lee		D864,050 S	*	10/2019	Luke	D12/163
D823,188 S		7/2018	Loeb		D864,051 S		10/2019	Luke et al.	
D823,738 S		7/2018	Kim		D864,052 S		10/2019	Zipfel	
D824,807 S	*	8/2018	Zhang	D12/91	D864,053 S		10/2019	Zipfel	
D824,811 S		8/2018	Mainville		D866,413 S	*	11/2019	Luke	D12/163
D824,812 S		8/2018	Loeb		D867,939 S		11/2019	Yong et al.	
D825,403 S		8/2018	Whitla et al.		D868,639 S		12/2019	Wilkins et al.	
D827,506 S		9/2018	McMahan et al.		D868,640 S	*	12/2019	DiCanzio	D12/163
					D868,642 S	*	12/2019	DiCanzio	D12/163
					D868,644 S	*	12/2019	Lu	D12/163
					D870,001 S		12/2019	Mai	
					D873,726 S		1/2020	Zipfel	

(56)

References Cited

U.S. PATENT DOCUMENTS

D879,679	S	*	3/2020	Kezha	D12/163
D885,261	S		5/2020	Zipfel	
D892,000	S		8/2020	De Leon	
D894,059	S		8/2020	Mai	
D894,801	S		9/2020	Zipfel	
D899,327	S	*	10/2020	Kim	D12/169
D902,795	S		11/2020	Schmeckpeper	
D909,929	S	*	2/2021	Bucher	D12/163
D923,522	S	*	6/2021	DiCanzio	D12/163

* cited by examiner

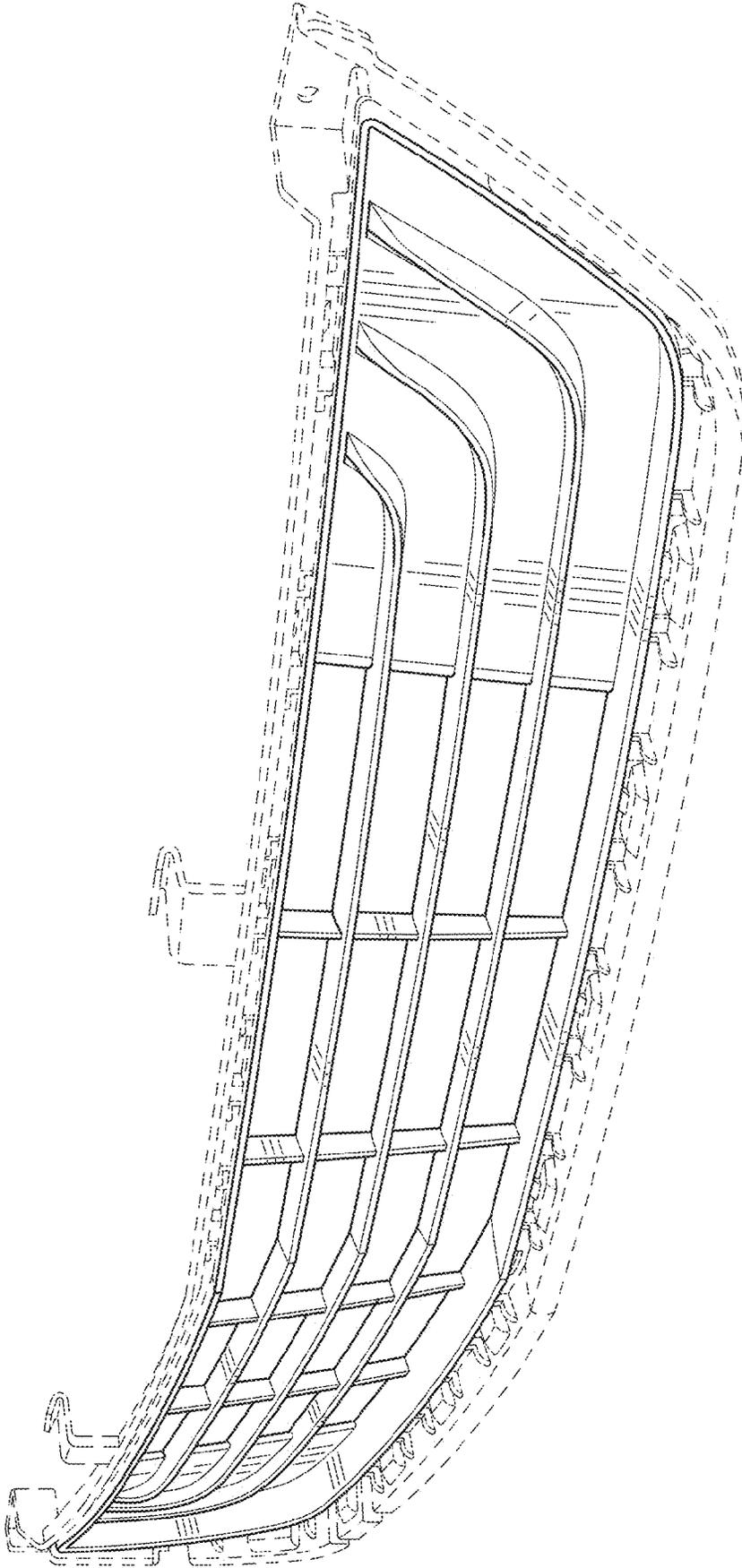


FIG. 1

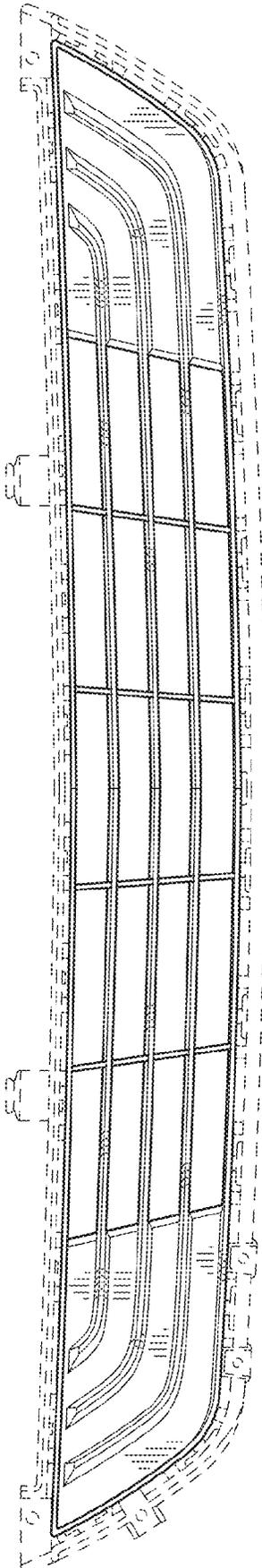


FIG. 2

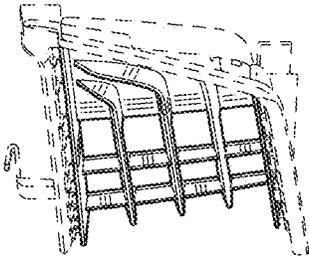


FIG. 3

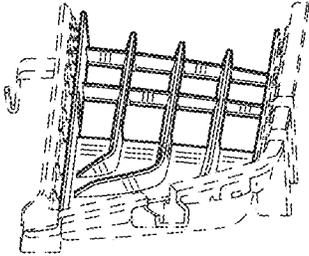


FIG. 4

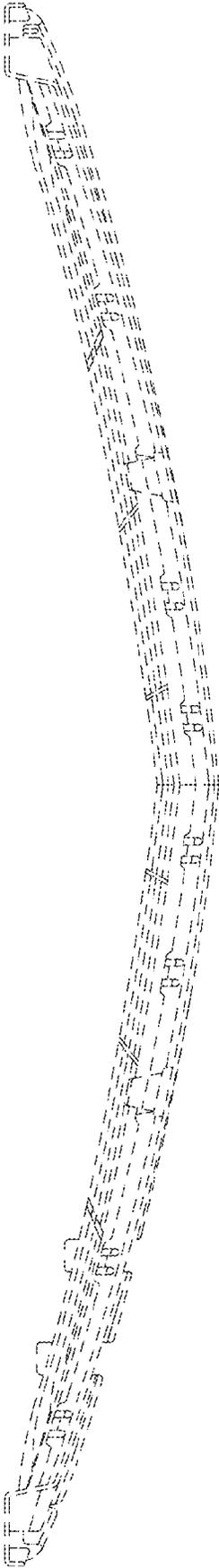


FIG. 5

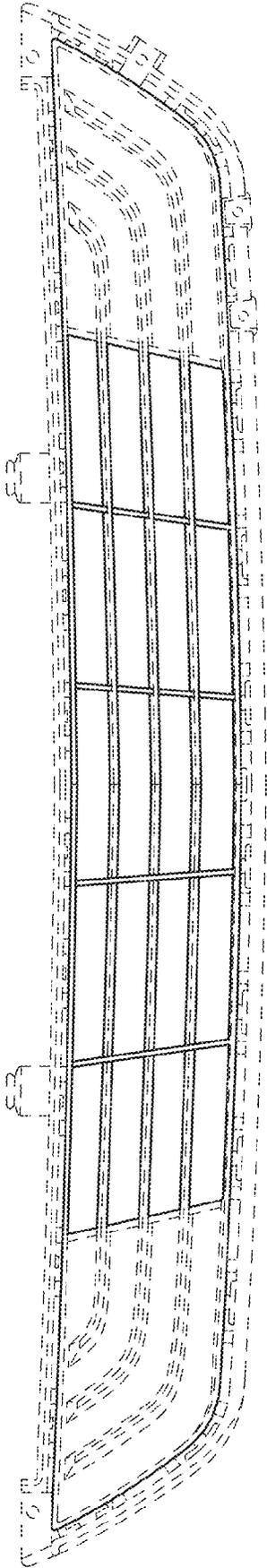


FIG. 6



FIG. 7